

**UTAH STATE BOARD OF EDUCATION
STANDING COMMITTEES,
UTAH SCHOOLS FOR THE DEAF AND THE BLIND (USDB)
GOVERNING BOARD,
USB E MEETING (CONTINUED FROM PREVIOUS DAY),
AND
STUDY SESSION MEETINGS**



August 7, 2026

Finance Committee, Standards and Assessment Committee,
Law and Licensing Committee,
Continued USB E Business and Study Session are a hybrid format
with an anchor location at
the Board of Education offices 250 E 500 S, Salt Lake City, Utah

MEMBERS OF THE PUBLIC MAY VIEW THE MEETING LIVE AT
<https://www.youtube.com/c/USBEMedia>

1. **Standards and Assessment Committee - 8:00 AM to 12:00 PM - Individuals who want to make comment on specific items during the committee (virtually), email andrea.curtin@schools.utah.gov prior to the meeting. Public comment is at the discretion of the committee chair.**
 - 1.1. INFORMATION: Public Comment
 - 1.2. ACTION: Board Review of Appeals on LEA Sensitive Materials Decisions
 - 1.3. ACTION: American Constitutional Government and Citizenship Standards Review
 - 1.4. ACTION: R277-117, Utah State Board of Education Ethics Amendments (New)
 - 1.5. ACTION: R277-631, Student Toilet Training Requirements (Amendment)
 - 1.6. ACTION: R277-633, Dyslexia Screener (New)
 - 1.7. ACTION: R277-914, Career and Technical Student Organizations (Amendment & Continuation)
 - 1.8. ACTION: R277-727, School Meal Programs (Amendment)
 - 1.9. **Time Certain 11:00** - INFORMATION: Independent Review of Mathematics Standards Presentation
 - 1.10. ACTION: General Financial Literacy Standards Update
 - 1.11. ACTION: R277-702, Procedures for the Utah High School Completion Diploma (Amendment & Continuation)
 - 1.12. INFORMATION: Professional Outreach Programs (POPs) Program Review R277-444
 - 1.13. INFORMATION: AI in Education

2. Finance Committee - VIRTUAL, 9:00 AM to 12:00 PM - Individuals who want to make comment on specific items during the committee (virtually), email cammy.wilcox@schools.utah.gov prior to the meeting. Public comment is at the discretion of the committee chair.

- 2.1. INFORMATION: Public Comment
- 2.2. ACTION: R277-113, Local Education Agency (LEA) Fiscal and Auditing Policies (Continuation & Amendment)
- 2.3. ACTION: R277-109, Legislative Reporting and Accountability (Continuation)
- 2.4. ACTION: R277-712, Personalized, Competency-based Learning Grant Programs (Continuation & Repeal)
- 2.5. ACTION: R277-720, Reimbursement Program for Early Graduation from Competency-Schools (Continuation & Repeal)
- 2.6. ACTION: Early Literacy Research Study
- 2.7. INFORMATION: Public Education Equalization Stabilization Restricted Fund
- 2.8. INFORMATION: Operational & Legal Framework Update for Utah System of Higher Education (USHE) and the Utah Data Research Center (UDRC) BRIDGE System
- 2.9. INFORMATION: Special Education Funding Options for Schools/LEAs with High Rates of SPED Students
- 2.10. INFORMATION: Recognition of Progress, Achievements, or Improvements
 - 2.10.1. INFORMATION: Program Monthly Report (PMR) on the Utah Schools Information Management System
 - 2.10.2. INFORMATION: Program Monthly Report (PMR) on Utah Grants

3. Law and Licensing Committee - 8:30 AM to 12:00 PM - Individuals who want to make comment on specific items during the committee (virtually), email vanessa.barnes@schools.utah.gov prior to the meeting. Public comment is at the discretion of the committee chair.

- 3.1. INFORMATION: Public Comment
- 3.2. ACTION: Amendment to Master Data Sharing Agreement with Utah Education Policy Center (USBE210089MA Amd. 2)
- 3.3. INFORMATION: Utah Professional Practices Advisory Commission (UPPAC) Update **Time Certain 9:00 AM**
- 3.4. ACTION: Alcott Learning EPP Application
- 3.5. ACTION: R277-330, Utah Effective Educator Standards (Amendment)
- 3.6. ACTION: R277-305, School Leadership License Areas of Concentration and Programs (Amendment)
- 3.7. ACTION: R277-106, Utah Professional Practices Advisory Commission Appointment (Continuation)
- 3.8. ACTION: R277-116, Audit Procedure (Continuation)
- 3.9. ACTION: R277-323, Public Educator Evaluation (Amendment)
- 3.10. ACTION: R277-324, Paraprofessional/Paraeducator Programs, Assignments, and Qualifications (Continuation)
- 3.11. ACTION: Approval of ParaPathways
- 3.12. ACTION: R277-487, Public School Data Confidentiality and Disclosure (Amendment)

- 3.13. ACTION: R277-608, Emergency Safety Interventions and Prohibition of Corporal Punishment (Amendment)
- 3.14. ACTION: Audit Committee Statutory Change Requests
- 3.15. ACTION: School Safety Dashboard

4. Lunch - 12:00 to 1:00 PM

5. Utah Schools for the Deaf and the Blind (USDB) Board Meeting - 1:00 to 1:30 PM

- 5.1. INFORMATION: Public Comment
- 5.2. INFORMATION: Monthly USDB Budget Update
- 5.3. INFORMATION: Superintendent Report

6. USDB Standing Committee Report/Recommendations (Items duplicated from the June 9, 2026, meeting) - 1:30 to 2:30 PM

- 6.1. INFORMATION: Summary of Actions
- 6.2. INFORMATION: Student Enrichment Activity Report
- 6.3. ACTION: R277-802 USDB Enrichment Program (New)
- 6.4. ACTION: FY2027 USB Enrichment Budget
- 6.5. ACTION: USDB Fiscal Needs
- 6.6. ACTION: 8.30 Educational Benefit Review Policy
- 6.7. ACTION: Language and Communications Plan
- 6.8. INFORMATION: Update on Utah Schools for the Deaf and Blind
- 6.9. INFORMATION: Advisory Council Update

7. USDB Standing Committee Report/Recommendations (Items duplicated from the July 27, 2026, meeting) - 2:30 to 3:00 PM

- 7.1. INFORMATION: Summary of Actions
- 7.2. ACTION: USDB Facilities Working Group Recommendations

8. Study Session - 3:00 to 4:00 PM. The meeting will be streamed to the public at <https://www.youtube.com/c/USBEMedia>.

- 8.1. Every Student Succeeds Act (ESSA) Waiver
- 8.2. Streamline Educator Licensing

9. Unfinished Board Business from the August 6, 2026, Meeting - 4:00 to 5:00 PM

UTAH STATE BOARD OF EDUCATION

Subject:

INFORMATION: Public Comment

Agenda item type:

Information Item

Recommended Action:

N/A

Purpose of Memo:**Background:****Committee Meeting Public Comment**

The Utah State Board of Education (USBE) appreciates your interest in sharing your public comments at the monthly board meeting. Individuals who want to comment on a specific agenda item(s) during the committee meetings, please get in touch with Andrea Curtin andrea.curtin@schools.utah.gov

You are welcome to send written comments to the Board at any time: board@schools.utah.gov. Please include the city where you live in your email because your recognized board member may choose to reply personally.

Public Comment Disclaimer

1. Public comments are limited to 2 minutes per person.
2. A comment can express simple support or dissent about regulatory action. However, a constructive-comment supported by evidence, data, and information is more likely to-influence regulatory decision-making.
3. Individuals should not use the public comment to complain about personnel issues or attack or defame an individual.
4. Speakers making a highly detailed or complex comment should also consider providing a written outline of their words to the Board.
5. Please remember that children may hear your comments. Be thoughtful and professional.
6. Keep your comments appropriate for a general audience. If you have material with explicit language/content, submit such material in writing to the Board at publiccomments@schools.utah.gov

Standing Committee Meetings

Individuals who want to comment on a specific agenda item(s) during a committee meeting, please get in touch with the following people:

Cammy Wilcox

Finance Committee | cammy.wilcox@schools.utah.gov

Andrea Curtin

Standards and Assessment Committee | andrea.curtin@schools.utah.gov [\(External Web Content\)](#)

Vanessa Barnes

Law and Licensing Committee | vanessa.barnes@schools.utah.gov (External Web Content)

Contact:

Andrea Curtin
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801-538-7515
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Attachments:

None

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: Board Review of Appeals on LEA Sensitive Materials Decisions

Agenda item type:

Action Item

Recommended Action:

If the Committee determines that the LEA did not adhere to its policy, the Committee shall recommend that the Board return the matter to the LEA with an order that includes the following:

1. explanation of the procedural deficiencies;
2. recommendations to the LEA, that may include changes to the LEA's process; and
3. a requirement that the LEA repeat its review process in compliance with its policy.

Additionally, the LEA is required to post this order on its website.

Purpose of Memo:

Result of legislative action

Background:

Background: [Rule R277-123](#) establishes the official process for members of the public to report alleged violations of statute and board rule within the public education system. Specifically, Section R277-123-10 details the framework for the Board Review of Appeals on LEA Sensitive Materials Decisions. In alignment with the statutory requirements governing instructional and library materials in [Utah Code § 53G-10-103](#), this administrative rule allows an individual with standing (such as a parent or student within the affected LEA) to formally request a state-level review within 30 days of an LEA's final decision regarding a sensitive materials challenge. Under the specific parameters of this rule, the scope of the State Board's review is narrowly focused: the Board's legal counsel evaluates the submission strictly to determine whether the LEA violated the operational and procedural requirements outlined in the LEA's own adopted sensitive materials appeal policy. If procedural violations are substantiated, the Board maintains the authority to return the appeal to the local education agency with corrective orders or implementation recommendations.

Contact:

Name: Lora Cooper
Title: **Assistant Attorney General**
Phone:
Email: lora.cooper@schools.utah.gov

Davina Sauthoff
Library Media Specialist

davina.sauthoff@schools.utah.gov

Attachments:

1. Sensitive Materials 07-20-26 BoardMemo-V1
2. 1-Policy (4I-204 Sensitive Materials)
3. 2-Appeal Information Packet (Fight Club)
4. 3-Appeal Committee Recommendation
5. 4-Board Meeting Minutes

6. Davis County Board Meeting



Utah State Board of Education

Official Board Memo
Backup Document

Title: Board Review of Appeals on
LEA Sensitive Materials Decisions

Draft Number: 1

Date: August 7, 2026

Rule/Statute:

[R277-123-10](#)

[53G-10-103](#)

Contact Person and Email:

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Davina Sauthoff

Library Media Specialist

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**This draft is for consideration during
the (08/07/2026) Committee/Board
Meeting:**

Background: Rule R277-123 establishes the official process for members of the public to report alleged violations of statute and board rule within the public education system.

Specifically, Section R277-123-10 details the framework for the Board Review of Appeals on LEA Sensitive Materials Decisions. In alignment with the statutory requirements governing instructional and library materials in Utah Code § 53G-10-103, this administrative rule allows an individual with standing (such as a parent or student within the affected LEA) to formally request a state-level review within 30 days of an LEA's final decision regarding a sensitive materials challenge.

Under the specific parameters of this rule, the scope of the State Board's review is narrowly focused: the Board's legal counsel evaluates the submission strictly to determine whether the LEA violated the operational and procedural requirements outlined in the LEA's own adopted sensitive materials appeal policy. If procedural violations are substantiated, the Board maintains the authority to return the appeal to the local education agency with corrective orders or implementation recommendations.

Background of the Discussion: This discussion is brought before the committee following a formal appeal filed under R277-123-10 by a community member regarding a recent sensitive materials final determination made by a local education agency. Because the community member has met the criteria for



Utah State Board of Education

Official Board Memo Backup Document

standing and filed within the statutory 30-day window, this item has been placed on the August 2026 committee agenda for structural and procedural review. The committee will examine the evaluation provided by legal counsel to determine whether the LEA adhered to its local review policies and to decide whether a formal recommendation or procedural order should be forwarded to the full Board for action.

Davis School District Policy and Procedures

Subject: 4I-204 Sensitive Instructional Materials
Index: Instructional Programs
Draft: January 21, 2025

1. PURPOSE AND PHILOSOPHY

In evaluating, selecting, or considering instructional material, the Board of Education for the Davis School District (Board) shall prioritize protecting children from the harmful effects of illicit pornography over other considerations in evaluating instructional materials. This policy is adopted to establish a clear process for review, identification and removal of any sensitive instructional material as defined in Utah Code Ann. [§53G-10-103](#).

2. POLICY

The District and its schools may not adopt, use, distribute, provide a student access to, or maintain in the school setting, sensitive instructional materials; or permit a speaker or presenter in the school setting to display or distribute sensitive materials as defined in Utah Code Ann. §53G-10-103.

3. SENSITIVE MATERIALS REVIEW PROCESS

If a parent, student, employee, or Board member feels that a specific instructional material, as defined in this policy, contains sensitive material, they may request that the material be considered for removal.

3.1 Responsibilities

3.1.1. The District Teaching and Learning Director or designee will oversee the processing of all Sensitive Materials Review Requests.

3.1.2. The District Teaching and Learning Director shall establish an Objective Sensitive Materials Review Committee (Objective Committee), and one or more Subjective Sensitive Materials Review Committees (Subjective Committees).

3.1.3. Each Objective Committee includes:

- [a] a facilitator appointed by the Superintendent who oversees and supports the committee's process and serves as a non-voting member of the committee;
- [b] a District administrator appointed by the Superintendent;
- [c] a licensed teacher who is teaching English Language Arts or other relevant subject in a District school;
- [d] a librarian who works in a District school; and
- [e] four parents with students enrolled in a District school.

3.1.4. Each Subjective Committee includes:

- [a] a facilitator who oversees and supports the committee's process and serves as a non-voting member of the committee;
- [b] at least one educator or administrator working in a District department or school;
- [c] a licensed teacher who is teaching English Language Arts or other relevant subject in a District school;
- [d] a librarian who works in a District school; and

- [e] four parents with students enrolled in a District school.
- 3.1.5. Except as noted in 3.1.3 [a] and [b], employee members of committees will be selected by the District Teaching and Learning Director.
- 3.1.6. Each school community council will select a parent to be included in the Appointed Parent Pool each year.
 - [a] Two parent members on the Objective Committee and two parent members on each Subjective Committee will be randomly selected from the Appointed Parent Pool.
 - [b] The Teaching and Learning Director will provide procedural guidance to community councils as they select a parent who represents the school community for inclusion in the Appointed Parent Pool.
 - [c] If there are insufficient applications to complete the random selection process, remaining parent positions will be selected from the Lottery Parent Pool.
- 3.1.7. Parents of students in the District may submit a form each year requesting inclusion in the Lottery Parent Pool.
 - [a] Two parent members on the Objective Committee and two parent members on each Subjective Committee will be randomly selected from the Lottery Parent Pool.
 - [b] If there are insufficient applications to complete the random selection process, remaining parent positions will be selected from the Appointed Parent Pool.
- 3.1.8. Objective Committees will meet monthly throughout the school year when review requests are pending completion. As determined by the Teaching and Learning Director, Objective Committees may continue their service for more than one school year, or they may be disbanded at the end of a school year.
- 3.1.9. The Teaching and Learning Director will determine the number of active Subjective Committees needed. As determined by the Teaching and Learning Director, Subjective Committees may convene and disband throughout the year to expedite the requested reviews. Subjective Committees may continue their service for more than one review during a school year, or they may be disbanded at the conclusion of a review. Subjective Committees are disbanded at the end of a school year.

3.2. Requests for Review

- 3.2.1. "Standing" means a requester's right to request a sensitive materials review for instructional materials and is limited to the following:
 - [a] Students currently enrolled and attending a school in the District.
 - [b] Parents and guardians of students who are currently enrolled and attending a school in the District.
 - [c] District employees.
 - [d] School Board members.
- 3.2.2. A person with standing may submit a Sensitive Materials Review Request for a specific instructional material.
 - [a] The request must be submitted using the District's Sensitive Materials Review Request Form.
 - [b] Information provided on the form must reflect the person's own words

and perspectives. If a form is submitted with external links or incomplete information, the facilitator will return it as invalid until corrected and resubmitted.

- 3.2.3. If a specific instructional material is the subject of multiple Sensitive Materials Review Requests prior to the completion of the initial review process, the facilitator will share information from all requests with the Objective or Subjective Committee for consideration.
- 3.2.4. Notwithstanding section 3.2.1, after an individual makes three unsuccessful Sensitive Materials Review Requests or appeals during a given school year, the individual may not trigger a sensitive material review or appeal under this policy during the remainder of the given school year.

3.3. Timeline and Decisions

- 3.3.1. Objective Committees will make a determination for a reviewed instructional material as follows:
 - [a] Removed: the determination to prohibit access in a school setting to the reviewed instructional material for all students.
 - [b] Under Further Review: the determination to allow access in a school setting for students with written parent permission while the instructional material is reviewed in its entirety by a Subjective Committee.
- 3.3.2. Subjective Committees will make a determination for a reviewed instructional material as follows:
 - [a] Retained: the determination to maintain access in a school setting to the reviewed instructional material for all students.
 - [b] Removed: the determination to prohibit access in a school setting to the reviewed instructional material for all students.
- 3.3.3. Since instructional materials differ widely, the time required to complete the review process will differ depending on the material under review.
 - [a] Objective Committee reviews will ideally be completed within 30 school days of the review request. If this timeframe is not possible, the facilitator will communicate the adjusted timeline to the person submitting the request.
 - [b] Subjective Committee reviews require additional time. For these reviews, the committee's facilitator will establish an estimated timeline to allow for completion of the review and communicate the timeline to the person who submitted the request.
 - [c] If a review cannot be completed prior to the end of a school year, the review process may be suspended at the end of the school year and resume when the following school year begins.
- 3.3.4. Objective and Subjective Committee members will vote anonymously, and the committee's decision will be determined by majority vote.
- 3.3.5. Objective and Subjective Committee members will be asked to offer an anonymous statement of rationale for their vote.
- 3.3.6. Determinations to remove sensitive material will stand indefinitely or until changes in Utah code or this policy require reconsideration. Determinations to retain a material will stand for the three full school years following the decision; during which time the material may not be reviewed again. As an exception, the Board may initiate reconsideration of

any previous determination by board action in an open and public meeting.

- 3.3.7. The Teaching and Learning Director or designee will communicate committee decisions and rationale to the requestor and all appropriate school personnel within 10 school days of the decision.
- 3.3.8. The Teaching and Learning Director or designee will maintain an online list of all instructional materials that are reviewed and the associated determination with anonymous votes and statements of rationale from committee members within 10 school days of the decision.
- 3.3.9. The Teaching and Learning Director will establish procedures to facilitate the prompt resale, recycling, or disposal of instructional materials which are identified for removal.

3.4. Review Process and Considerations

- 3.4.1. The Teaching and Learning Director or designee will acknowledge receipt of each review request to the requestor within 10 school days of submission.
- 3.4.2. The Teaching and Learning Director or designee will maintain an online list of instructional materials under review which includes an invitation for patrons to submit written comment during the first 10 school days of the review process. Public comment will be accepted from any community member who lives within the geographic boundary of the District or any District employee.
- 3.4.3. At each meeting, the Objective Committee will consider new requests for which the comment period has ended. If the number of requests exceeds the number which can be reviewed during the meeting, the facilitator may determine to address some requests in the following meeting of the Objective Committee.
- 3.4.4. The Objective Committee conducts reviews for all requests to determine whether instructional materials under review contain objective sensitive material as defined by Utah Code Ann. §76- 10-1227(1)(a)(i), (ii), or (iii).
 - [a] If, after a review by the Objective Committee, a challenged material is determined to contain objective sensitive material as defined by Utah Code Ann. §76-10-1227(1)(a)(i), (ii), or (iii), the material will be removed immediately from all schools in the District.
 - [b] If a material is determined to not contain objective sensitive material as defined by Utah Code Ann. §76-10-1227(1)(a)(i), (ii), or (iii), the material will be advanced for further review by a Subjective Committee.
- 3.4.5. Subjective Committees will convene as soon as possible after an instructional material is advanced for further review by the Objective Committee. The facilitator will schedule meetings as needed for the Subjective Committee to review the material in its entirety, discuss the request, and make a determination.
- 3.4.6. Subjective Committees will determine whether the instructional material constitutes subjective sensitive material as defined by Utah Code Ann. §53G-10-103 and this policy.
- 3.4.7. In deciding whether a reviewed instructional material contains subjective sensitive material, the Subjective Committee shall consider all definitions of

subjective sensitive material defined in Utah Code Ann. §53G-10-103 which were not already considered by the Objective Committee. The Subjective Committee shall include consideration of any serious literary, artistic, political, or scientific value of the material as a whole for minors.

- 3.4.8 In determining whether an instructional material has serious literary, artistic, political, or scientific value for minors, the Subjective Committee shall use their own experience and background and an assessment of community standards as they consider:
 - [c] the work as a whole; and
 - [d] timeliness and/or permanence of the work in the community; and
 - [e] readability and accessibility for intended audience; and
 - [f] artistic or literary quality and style; and
 - [g] reliable reviews of the material from objective sources; and
 - [h] serious value does not mean any value.
- 3.4.9 If, after a review by the Subjective Committee, an instructional material is determined to contain subjective sensitive material consistent with Utah Code Ann. §53G-10-103, the material will be removed immediately from all schools in the District.
 - [i]
- 3.4.10 Objective and Subjective Committee members will receive training from the Teaching and Learning Director, District Legal Counsel, and the Assistant Superintendent over Teaching and Learning on the requirements identified in this policy. Materials for this training will be published on the Teaching and Learning website.
- 3.4.11 Objective and Subjective Committee members will receive the following materials as needed to complete the review process:
 - [j] the complete work which is being reviewed;
 - [k] a copy of the submitted Sensitive Materials Review Request Form;
 - [l] a copy of this policy;
 - [m] relevant information about the title compiled by the facilitator; and
 - [n] text of all comments provided during the comment period.
- 3.4.12 The facilitator of Objective and Subjective Committees will ensure that committee members' anonymous votes and statements of rationale are retained and submitted to the Teaching and Learning Director or designee along with a statement of the committee's final determination.

3.5. **Status of Materials While Under Review**

- 3.5.1. When a request is received, two district administrators appointed by the Superintendent and one board member appointed by the Board President will preview the request to determine if it presents a plausible claim that the instructional material constitutes sensitive material. If they determine that the request presents a plausible claim, student access to the material will be removed until completion of the review process.
- 3.5.2. If a committee's decision is appealed, the status resulting from the committee's decision will continue until the appeal process is completed.

3.6. **Privacy of Individuals**

- 3.6.1. The identity of a person submitting a request for review or appeal will not be disclosed publicly or to members of the Objective or Subjective Committees.
- 3.6.2. The identity of Objective and Subjective Committee members will not be disclosed publicly or to the person who requested the review. The Committee member's role, vote, and statements of rationale will be retained, but their identity will not be noted in the documentation of the committee's work. Committee facilitators will receive instruction on their responsibilities related to documentation of the committee's work and open records laws.

4. APPEAL PROCESS

- 4.1 The original requestor or another individual with standing may appeal the determination of an Objective or Subjective Committee, using the District's Sensitive Material Appeal Request Form according to the following guidelines:
 - 4.1.1 An appeal may be submitted regardless of whether the instructional material was removed or retained by the committee.
 - 4.1.2 An appeal may not be submitted by a member of the Objective or Subjective Committee that reviewed the material
 - 4.1.4 An appeal must be submitted within 30 school days of the date when the committee's original determination was posted to the website.
 - 4.1.5 An appeal request must state how the rationale or outcome of the review process violates policy or clearly articulate why a further review of the material in question is justified. If an appeal request is submitted with external links or incomplete information, the facilitator may return it as invalid until corrected and resubmitted.
- 4.2 If no appeal is submitted in accordance with 4.1, the determination is final for the reviewed instructional material.
- 4.3 In accordance with Board Policy *1B-015 Election and Duties of Board President and Vice-President*, the Board President will appoint an Appeals Committee consisting of three Board members.
- 4.4 The Assistant Superintendent over Teaching and Learning will provide all materials needed for the appeals process including the following:
 - [a] a copy of the material;
 - [b] a copy of the original Sensitive Materials Review Request Form;
 - [c] a statement of Objective Subjective Committee determinations;
 - [d] Objective and Subjective Committee member votes and statements of rationale; and
 - [e] text of all comments provided during the comment period.
- 4.5 In consultation with the Assistant Superintendent over Teaching and Learning, the Appeals Committee will determine the timeline for completion of the appeal process. Ideally, the timeline will allow for completion of the appeal process within 60 school days of the conclusion of the appeal window. If a 60-day timeline will not be possible, the Assistant Superintendent will communicate the adjusted timeline to the person submitting the request.
- 4.6 The status of an instructional material will remain consistent during the appeal process.
- 4.7 The Appeals Committee will make a recommendation for an appealed material as follows:

- 4.7.1 Retained: the determination to maintain access in a school setting to the reviewed instructional material for all students.
- 4.7.2 Removed: the determination to prohibit access in a school setting to the reviewed instructional material for all students.
- 4.8 The recommendation of the Appeals Committee will be determined by majority vote.
- 4.9 The Appeals Committee will present their recommendation to the full Board for approval during a public Board meeting where the final decision on the appeal and rationale for the decision will be determined by majority vote of the Board
- 4.10 The Director of Teaching and Learning or designee will inform the requestor and appropriate school personnel of the results of the appeal within 15 school days of the decision.

5. STATEWIDE REMOVAL OF INSTRUCTIONAL MATERIALS

- 5.1 Notwithstanding determinations made based on this policy, any instructional material identified for statewide removal according to Utah Code Ann. §53G-10-103(7) will be removed from student access in all schools. Such removal will be implemented as soon as reasonably possible after communication from Utah State Board of Education (USBE) is received.
- 5.2 If the USBE overturns the statewide removal of an instructional material, and the material has not been determined to contain sensitive materials according to this policy, district policies and processes governing acquisition and use of instructional materials will determine student access to the material. (*See 4I-200 Instructional Materials Management and 4I-202 School Library Media Centers*)

6. COMMUNICATION AND TRAINING

6.1 Communication

- 6.1.1 The District Teaching and Learning Director will maintain a website which contains the following information:
 - [a] The District's Sensitive Materials Review Request Form;
 - [b] The District's Sensitive Materials Appeal Request Form;
 - [c] Information on how to request membership on an Objective or Subjective Committee;
 - [d] This policy and related procedure documents;
 - [e] A list of ongoing appeals;
 - [f] A list of all completed reviews and appeals with the date, decision, vote tallies, rationale statement for the decision, and anonymous comments from committee members;
 - [g] A list of any instructional material removed indicating whether the material was determined to have objective or subjective sensitive material.
- 6.1.2 The Director of Teaching and Learning or designee will assure compliance with all Utah State Board of Education reporting requirements regarding sensitive materials.

6.2 Training

The District Teaching and Learning Department shall ensure that all employees with responsibility for selecting instructional materials receive training on this policy and its supporting procedures.

DEFINITIONS

“Instructional material” means a material, regardless of format, used: 1) as or in place of textbooks to deliver curriculum within the state curriculum framework for courses of study by students; or 2) to support a student’s learning in any school setting. “Instruction materials” includes reading materials, handouts, videos, digital materials, websites, online applications, and live presentations. “Instructional material” does not mean exclusively library materials.

“Objective sensitive material” means an instructional material that constitutes pornographic or indecent material, as that term is defined in Utah Code Ann. §76-10-1235, under the non-discretionary standards described in Utah Code Ann. §76-10-1227(1)(a)(i), (ii), or (iii).

“Sensitive material” means an instructional material that constitutes objective sensitive material or subjective sensitive material. “Sensitive material” does not include an instructional material that an LEA selects under Utah Code Ann. §53G-10-402; for 1) a concurrent enrollment course that contains sensitive material and for which a parent receives notice from the course provider of the material before enrollment of the parent’s child and gives the parent’s consent by enrolling the parent’s child; 2) medical courses; 3) family and consumer science courses; or 4) another course the state board exempts in state board rule.

“Subjective sensitive material” means an instructional material that constitutes pornographic or indecent material, as that term is defined in Utah Code Ann. §76-10-1235, under the following factor-balancing standards: 1) material that is harmful to minors under Utah Code Ann. §76-10-1201; 2) material that is pornographic under Utah Code Ann. §76-10-1203; or 3) material that includes certain fondling or other erotic touching under Utah Code Ann. §76-10-1227(1)(a)(iv).

“Unsuccessful challenge” means an allegation that a given instructional material constitutes sensitive material that the LEA concludes to be erroneous, either on direct review or on appeal to the LEA governing board, resulting in the retention of the given instructional material.

RELATED POLICIES AND GUIDANCE DOCUMENTS

[11IR-107 Recognizing Constitutional Freedoms in Public Schools](#)
[Attorney General's Memo June 1, 2022](#)

Sensitive Materials Website

[Sensitive Materials Review | Davis District](#)

REFERENCES

[Utah Code Section §53G-10-103 - Sensitive Instructional Materials](#)
[Utah Code R277-700 - The Elementary and Secondary School General Core](#)

DOCUMENT HISTORY

Adopted: May 7, 2019

Revised: January 21 2025: Moved sensitive material review section in policy 4I-202 School Library Media Centers into a new stand-alone policy. Implement clarifications needed after passage of HB29.



Fight Club #1

Fight Club

Chuck Palahniuk

★★★★☆ 4.18

643,193 ratings · 26,729 reviews

Chuck Palahniuk showed himself to be his generation's most visionary satirist in this, his first book. *Fight Club's* estranged narrator leaves his lackluster job when he comes under the thrall of Tyler Durden, an enigmatic young man who holds secret after-hours boxing matches in the basement of bars. There, two men fight "as long as they have to." This is a gloriously original work that exposes the darkness at the core of our modern world.

Want to Read

Shop this series



Rate this book

Genres [Fiction](#) [Classics](#) [Thriller](#) [Contemporary](#) [Novels](#) [Mystery](#) [Literature](#) [...more](#)

224 pages, Paperback

First published August 17, 1996

Book details & editions

Request For Review

Date of Request: 9/29/2025

Did the Requestor examine the entire material? No

Material that was challenged:

Please see the Appendix for Additional Submission Material. All excerpts have been verified.

Plausibility Review

Date of Plausibility Review: 10/2/2025

Decision: The committee determined the claim was plausible by a vote of 3-0. Librarians were instructed to remove the materials from student access on 10/10/2025

Objective Review

Narrative: Objective Review committee members were emailed all information on 10/10/2025 and asked to make their final determination by 10/30/2025. An optional meeting was held on 10/27/2025 to answer any questions or discuss concerns about this and other titles. A vote of 4 out of 7 was cast in favor of retaining the material.

Date of Objective Materials Review Vote: 11/4/2025

Vote Results : 4 out of 7 to Retain

Based on the content that I read, I vote to:

Committee Member #1	Retain
Committee Member #2	Retain
Committee Member #3	Remove
Committee Member #4	Retain
Committee Member #5	Remove
Committee Member #6	Remove
Committee Member #7	Retain

I justify this decision based on:

Committee Member #1	It used the word "erection", but it did not describe it.
Committee Member #2	Does not meet the criteria
Committee Member #3	Explicit violation of part a.
Committee Member #4	The material does not contain anything in violation of 76-10-1227.
Committee Member #5	Quoted directly " a lunging red penis or a yawning wet vagina."
Committee Member #6	The material contains language that is sensitive.
Committee Member #7	While I find it inappropriate for youth, I don't think it breaks the law

Subjective Review

Narrative: Subjective Review committee members were emailed all information on 11/5/2025. A meeting was held on 12/3/2025 and all votes were in by 12/8/2025. A vote of 7 out of 7 was cast in favor of removing the material based on subjective sensitive materials.

Date of Subjective Materials Review Vote: 12/8/2025

Vote Results : 7 out of 7 to Remove

Question 1: Does the material have serious literary, artistic, political, or scientific value?

Committee Member #1	No
Committee Member #2	No
Committee Member #3	No
Committee Member #4	No
Committee Member #5	No
Committee Member #6	No
Committee Member #7	No

Question 2: Does the material contain any material defined as harmful to minors?

Committee Member #1	Yes
Committee Member #2	Yes
Committee Member #3	Yes
Committee Member #4	Yes
Committee Member #5	Yes
Committee Member #6	Yes
Committee Member #7	Yes

Question 3: Does the material contain any material defined as pornographic?

Committee Member #1	No
Committee Member #2	Yes
Committee Member #3	No
Committee Member #4	No
Committee Member #5	No
Committee Member #6	Yes
Committee Member #7	No

Question 4: Does the material contain any material described in sub-section (iv) in Section 76-10-12:

Committee Member #1	No
Committee Member #2	Yes
Committee Member #3	No
Committee Member #4	No
Committee Member #5	No
Committee Member #6	Yes
Committee Member #7	Yes

Question 5: Based on all the information, should the book be retained or removed?

Committee Member #1	Removed
Committee Member #2	Removed
Committee Member #3	Removed
Committee Member #4	Removed
Committee Member #5	Removed
Committee Member #6	Removed
Committee Member #7	Removed

I justify this decision based on:

Committee Member #1	There were some sections of the book that weren't described enough in detail to be considered against the law, however, the violence and overall attitude towards violence is something that is concerning to expose teenagers to. There also isn't much redeeming qualities in the characters and I feel that teenagers aren't quite mature enough to handle the content of the book.
Committee Member #2	The content in this book are adult in nature with adult characters. This book was not meant for minors and I did not feel that it had value for being in a school library.
Committee Member #3	The level of violence contained in the book is too mature for minor audiences. The characters are all adult characters. There are descriptions of castration, intense beatings, encouraging fighting and vandalism, etc.
Committee Member #4	I don't believe this has value for minors. I can see lessons that can be taken for adults, but they are nuanced and behind a veil of violence that is glorified.
Committee Member #5	The target audience for this book seems to be adults. The characters are adults and the content is mature. There is a descriptive mutilation scene and explicit instructions on how to make bombs. There doesn't seem to be positive "serious value" having this book for students so I recommend it is removed from school libraries.
Committee Member #6	Sexual content Graphic content: Contains violence, self-harm, and mature themes that may be considered inappropriate for younger students. Potential for misinterpretation: Satire and commentary on masculinity, chaos, and rebellion can be misread as endorsement Mental health concerns: Depictions of dissociation and psychological instability may be sensitive or triggering for some students.
Committee Member #7	This book is not appropriate for minors due to the sexual content and violent nature. Although this book would appeal to older adults, students with under developed brains might take the topics of this book too far and try to repeat things expressed in this book.

Appeal Request

Date of Appeal Request: 1/13/2026

Rationale:

The committee itself determined the book's sensitive material cannot justify its removal from school libraries. Its initial determination was "removal" only because the committee believed its literary value did not outweigh its "sensitive material." Utah HB-29 and DSD policy clearly state that a book's perceived literary value can only be used to justify retaining a book with sensitive material, not to justify its removal. If books are to be banned, it should be for their obscenity, not the committee's opinion on their literary value. Additionally, many people (including myself) have found great literary value in the book's unique voice, social criticisms of consumerism and modern masculinity, and its exploration around themes of identity and alienation.

Public Comments

As of 1/5/2026 there were no public comments for this title.

Appeal

Appeal Date:

Date of Formal Board Vote:

Vote Tally

Appeal Committee Decision and Rationale:



Davis School District Board of Education

Sensitive Materials Appeal Committee Recommendation

April 7, 2026

In accordance with policy *4I-202 School Library Media Centers*, the Sensitive Materials Appeal Committee presents the following recommendations to the board. We anticipate the board will approve/accept the Sensitive Materials Appeal Committee Recommendation in the board's business meeting for the Board of Education on April 7, 2026. Please call/text/email any questions to Assistant Superintendent Dr. Logan Toone.

Title	Plausibility Review Decision	Initial District Review Committee Decision	Appeals Committee Recommendation	Appeals Committee Rationale
Fight Club	Removed from student access	Removed (Subjective Committee 7:0)	Remove	In consideration of content of the book as well as the literary, artistic, political, or scientific value of the book for minors, the committee determines that the book contains subjective sensitive materials as defined by Utah law.

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**Board of Education Meeting Agenda
Administration Building, Farmington, UT
Tuesday, April 7, 2025**

Live-streamed via YouTube
<https://www.youtube.com/live/UoBn-RjAloE>

Board Members Present:

President Brigit Gerrard, Vice President Emily Price, Julie Powell, Kristen Hogan, Michelle Barber, Alisa Mercer, and Joani Stevens

Administration Present:

Superintendent Dr. Dan Linford, Business Administrator Mr. Tim Leffel, Asst. Superintendent Dr. Logan Toone, Asst. Superintendent Dr. Fidel Montero, and Asst. Superintendent Ms. Chadli Bodily

Introductory Items:

Welcome

Ms. Brigit Gerrard, Board President

Introduction of Northridge Student Body Officers

Dr. Dan Linford, Superintendent

Miss Lottie Squires

Mr. Gage Harper

Pledge of Allegiance

Miss Lottie Squires, Student Body President, Northridge High School

Student Performance:

Woods Cross High School Cantabella – “Boogie Woogie Bugle Boy” Teacher: Ms. Krista Baer
Mr. Mitch Hall, Teaching & Learning Fine Arts Supervisor

Public Comment Period:

Kynda Farrell – Teacher at Buffalo Point Elementary and a Teacher Mentor.

Katelyn Blake – Sophomore at Woods Cross HS, lessons learned from Girl Scouts.

Amanda Lindsay – Service Volunteer for Girl Scouts. Shares the positive impact of Girl Scouts.

Kira Talbot – Fairfield Jr High, lessons learned from Girls Scouts.

Kinsley Talbot – Fairfield Jr High, lessons learned from Girl Scouts.

Finleigh Heiner – Legacy Jr High, lessons learned from Girl Scouts.

Annaliese Gomez – Centerville Jr High, lessons learned from Girl Scouts.

Board Recognition:

Dr. Tim Best, Linda Mayne Award

Ms. Chadli Bodily, Asst. Superintendent

Layton High School Wrestling 6A State Champions

Mr. Jason Smith, Secondary Director and Mr. Brock Jackman - Principal

Farmington High School Drill 6A State Champions

Ms. Deanne Kapetanov, Secondary Director

Information Items:

Committee Reports

DTC (Davis Technical College) Report

Ms. Brigit Gerrard, Board President

Board Reports

Student Body Officer Reports – Northridge High School

Miss Lottie Squires and Mr. Gage Harper

Superintendent Report:

Dr. Dan Linford, Superintendent

Consent Items

1. Board Minutes – **moved for discussion by Julie Powell**
Mr. Tim Leffel, Business Administrator
2. Financial Report
Mr. Tim Leffel, Business Administrator
3. Personnel Report
Ms. Chadli Bodily, Asst. Superintendent
4. Head Start/ Early Head Start Reports
Dr. Fidel Montero, Asst. Superintendent
5. School Improvement Plan/LAND Trust Amendments
Ms. Julie Lundell, Assessment Director
6. Sensitive Materials Appeals Committee Recommendation
Presenter: Dr. Logan Toone, Asst. Superintendent

Kristen Hogan made a motion to approve Consent Items 2 – 6. Emily Price seconded the motion.

President Brigit Gerrard, Vice President Emily Price, Julie Powell, Kristen Hogan, Michelle Barber, Alisa Mercer, and Joani Stevens voted in favor. There was none in opposition. The motion passed.

Julie Powell made a motion to amend Consent Item 1 from the March 3rd Board Report given by Ms. Powell in the Business meeting. The last sentence originally read “Asked Ms. Gerrard about an agenda request for May workshop regarding an Honest Input Process”, [will now read “Mentioned that she had made an agenda request to Ms. Gerrard for a workshop regarding an anonymous input process, which workshop is anticipated to happen in May”](#). Alisa Mercer seconded the motion.

President Brigit Gerrard, Vice President Emily Price, Julie Powell, Kristen Hogan, Michelle Barber, Alisa Mercer, and Joani Stevens voted in favor. There was none in opposition. The motion passed.

Business Items

Student Fees First Reading

Ms. Deanne Kapetanov, Secondary Director

Michelle Barber made a motion to approve Student Fees on a **First Reading**. Emily Price seconded the motion.

President Brigit Gerrard, Vice President Emily Price, Julie Powell, Kristen Hogan, Michelle Barber, Alisa Mercer, and Joani Stevens voted in favor. There was none in opposition. The motion passed.

Northridge High School Culinary Arts Remodel to Hogan & Associates for \$1,042,881.00

Mr. Tim Leffel, Business Administrator

Michelle Barber made a motion to approve the Northridge High School Culinary Arts Remodel to Hogan & Associates for \$1,042,881.00. Brigit Gerrard seconded the motion.

President Brigit Gerrard, Vice President Emily Price, Julie Powell, Kristen Hogan, Michelle Barber, Alisa Mercer, and Joani Stevens voted in favor. There was none in opposition. The motion passed.

Meadowbrook Elementary Window Replacement to Hadfield Construction for \$573,350.00

Mr. Tim Leffel, Business Administrator

Joani Stevens made a motion to approve Meadowbrook Elementary Window Replacement to Hadfield Construction for \$573,350.00. Emily Price seconded the motion.

President Brigit Gerrard, Vice President Emily Price, Julie Powell, Kristen Hogan, Michelle Barber, Alisa Mercer, and Joani Stevens voted in favor. There was none in opposition. The motion passed.

Viewmont High School Gymnasium Air Conditioning to Ralph Tye & Sons for \$1,331,222.00

Mr. Tim Leffel, Business Administrator

Joani Stevens made a motion to approve Viewmont High School Gymnasium Air Conditioning to Ralph Tye & Sons for \$1,331,222.00. Julie Powell seconded the motion.

President Brigit Gerrard, Vice President Emily Price, Julie Powell, Kristen Hogan, Michelle Barber, Alisa Mercer, and Joani Stevens voted in favor. There was none in opposition. The motion passed.

Catalyst 2.0 Architect Selection to VCBO Architecture

Mr. Tim Leffel, Business Administrator

Emily Price made a motion to approve Catalyst 2.0 Architect Selection to VCBO Architecture. Alisa Mercer seconded the motion.

President Brigit Gerrard, Vice President Emily Price, Julie Powell, Kristen Hogan, Michelle Barber, Alisa Mercer, and Joani Stevens voted in favor. There was none in opposition. The motion passed.

Closed Meeting - Administration Building

The Board will go into closed session immediately following Board meeting for the purpose of negotiations.

Julie Powell made a motion to move into Closed Session for the purpose of Negotiations. Alisa Mercer seconded the motion. The Roll Call was unanimous.

The meeting was adjourned at 8:05 pm

President
Board of Education
Davis School District

Business Administrator
Board of Education
Davis School District

A Closed Meeting May Be Held to Discuss Property, Negotiations, Personnel Issues, Pending Litigation or Development of Security. In compliance with the Americans with Disabilities Act, persons needing special accommodations for this meeting should call Jillian Hanes at 801-402-5315 to make appropriate arrangements. Advance notice is appreciated.



Utah State Board of Education

Official Board Memo
Backup Document

Davis County Board Meeting

Contact Person and Email: Lora Cooper, Lora.Cooper@schools.utah.gov

Date: August 2026

This draft is for consideration during the August 7, 2026 Standards and Assessment Committee Meeting:

Davis County School Board Meeting April 7, 2026

This was a consent item without discussion. See the recording link below:

<https://www.youtube.com/live/UoBn-RjAloE?si=M9byNgOTFcTkl6Ky>

The relevant information appears at 1:34:30

The item was 1.F.6 on the agenda:

1.F.6. Sensitive Materials Appeals Committee Recommendation (exhibit)

Presenter: Dr. Logan Toone, Asst. Superintendent

Attachments: (1)

Below is the attachment:

File: 2026-04-07 Sensitive Materials Appeals

98 % View

Davis School District Board of Education
Sensitive Materials Appeal Committee Recommendation
April 7, 2026

In accordance with policy 4I-202 School Library Media Centers, the Sensitive Materials Appeal Committee presents the following recommendations to the board. We anticipate the board will approve/accept the Sensitive Materials Appeal Committee Recommendation in the board's business meeting for the Board of Education on April 7, 2026. Please call/text/email any questions to Assistant Superintendent Dr. Logan Toone.

Title	Plausibility Review Decision	Initial District Review Committee Decision	Appeals Committee Recommendation	Appeals Committee Rationale
Fight Club	Removed from student access	Removed (Subjective Committee 7.0)	Remove	In consideration of content of the book as well as the literary, artistic, political, or scientific value of the book for minors, the committee determines that the book contains subjective sensitive materials as defined by Utah law.

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: American Constitutional Government and Citizenship Standards Review

Agenda item type:

Action Item

Recommended Action:

That the Committee approve the American Constitutional Government and Citizenship Standards Draft 1 and forwards it to the Board for final adoption.

Purpose of Memo:

Other

Background:

Following public comment, the Writing Committee revised the American Constitutional Government and Citizenship Standards and provide this updated draft for consideration and approval. According to the agreed upon adoption timeline, this draft is considered in the Standards and Assessment Committee before forwarding to the Board for final approval.

Contact:

Name:	Meghan Everette	JoAnna Sorensen
Title:	Director of Teaching & Learning	Education Specialist
Phone:	801-538-7739	
Email:	meghan.everette@schools.utah.gov	Joanna.Sorensen@schools.utah.gov

Attachments:

1. ACGC Standards Tracked Changes
2. American Constitutional Government & Citizenship Revised Standard Draft (Editable)
3. American Constitutional Government & Citizenship - Full Standards
4. Public Comment Analysis
5. Public Comment Detailed Responses
6. Alignment to SB 268



UTAH CORE STATE STANDARDS for SOCIAL STUDIES

AMERICAN CONSTITUTIONAL GOVERNMENT & CITIZENSHIP

Course Description

A self-governing constitutional republic depends on its citizens' knowledge, understanding, engagement, and appreciation of its laws and constitution. **The goal of this course** is to acquaint students with the American constitutional tradition, and to equip students with the knowledge, skills, dispositions, and virtues necessary for upholding our constitutional republic. The name of the course, "**American Constitutional Government and Citizenship**," emphasizes this focus on the U.S. Constitution, individual liberties, and ~~on~~ informed and dedicated citizenship. **This course requires a study of the historical foundations, development over time, and current application of these concepts.**

The Declaration of Independence and **The Constitution of the United States** ~~the Constitution~~ are the guiding elements of this course. The course will use these and other important primary sources to cover five strands that derive from HB 381:

1. American Founding Principles
Constitutional Government and Union
2. Structures of **American Constitutional** Government
3. Development of the American Constitution
4. Practicing Constitutional Citizenship

Upon completion of this course, students will have gained civic knowledge about the major ideas, institutions, and practices that shape the life of a citizen in the United States.

Additionally, students will recognize and practice the civic skills needed to express opinions, work with others to solve problems, navigate commitment to principles while recognizing the place of compromise, weigh evidence, think critically, make informed decisions, and participate in government processes. ~~Additionally, students will recognize and practice the civic skills~~

Contact Person and Email: Meghan Everette, meghan.everette@schools.utah.gov

This draft is for consideration during the August 7, 2026 Standards & Assessment Committee Meeting

Date: August 7, 2026



Utah State Board of Education

UTAH CORE STATE STANDARDS for SOCIAL STUDIES

~~needed to courageously express opinions, working with others to solve problems, navigating commitment to principles while recognizing the place of compromise, weigh evidence, think critically, make informed decisions, and participate in government processes.~~ This course nurtures a commitment to the American ideals of liberty, justice, courage, civic charity, cooperation, and integrity. This course is **recommended for juniors or seniors** due to their proximity to voting age. The first semester of the course (Strands 1-3) **must be taken before** the second (Strands 4-5).

Principles of Civic Preparation

One of the fundamental purposes for public schools is the preparation of young people for citizenship in America's constitutional republic. The future flourishing of our communities—local, state, and national—rests upon the preparation of young people to find solutions to common problems; defend natural rights and civil liberties for themselves, their families, and others; and ~~to~~ take responsibility for the common good. Social studies and history classrooms are an important venue in which to develop civic skills, nurture civic virtues, and teach civic knowledge. They are also places to develop attachments to the Constitution and laws, consider current issues, and increase understanding of the world and its peoples. These civic skills, habits of mind, and qualities of character will better prepare students to recognize and accept responsibility for preserving and defending the freedom secured by the Constitution.

To reach these ends, students should have ample opportunities to employ civic knowledge, skills, dispositions and virtues.

Civic skills include but are not limited to:

- **Decision-making skills** exercised with fellow-citizens, such as courageously expressing an opinion, interacting and recognizing the perspectives of other stakeholders, working with others to solve problems, and navigating commitment to principles while recognizing the place of compromise.
- **Communication skills**, such as writing, speaking, and presenting; language proficiency; the ability to communicate and persuasively defend principles; use of public platforms to share knowledge; and active and respectful listening.
- **Rational thinking skills**, including carefully collecting and weighing information; seeking and discerning true principles; crafting evidence-based arguments; ~~and~~ avoiding logical fallacies.
- **Organizational skills**, including effectively organizing, networking, and collaborating with

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UTAH CORE STATE STANDARDS for SOCIAL STUDIES

others in their neighborhoods, communities, states, and nation; and utilizing civic and political organizations to participate in decision-making processes and solve community problems.

- **Source evaluation skills**, including how to thoughtfully read primary sources and interpret media claims, identifying the principal arguments and assumptions, analyzing the creator's perspective and reliability, contextualizing, and evaluating the significance and lasting effect of each source.

Civic dispositions and virtues include but are not limited to:

- **Integrity, Truthfulness, and Honor:** Demonstrating trustworthiness by keeping one's promises, telling the truth, and countering falsehoods.
- **Courage and Willingness to Sacrifice:** Standing firm on principles, even when it is unpopular, and taking constructive action in the face of fear, danger, or criticism.
- **Civic Charity:** Recognizing the worth of all human beings and responsibly seeking the well-being of one's family, neighbors, fellow citizens, and country.
- **Justice:** Understanding and upholding what is fair and right; respecting the dignity, liberty, and natural and civil rights of others; seeking laws that establish justice.
- **Wisdom and Prudence:** Good judgment; discerning right; correctly deciding what is most just, proper, and useful for a particular situation.
- **Moderation and Cooperation:** Exercising caution towards extremes; acting temperately, especially in attitudes towards adversaries; working together for a common the same civic end.

Note: For the purposes of this course, “civic dispositions” and “civic virtues” share the same meaning. However, the language of civic virtues will be used because it is the language of the Declaration of Independence and the other assigned primary sources and will thus better connect the students with them. A virtue is a consistent habit of choosing what is good, just, and right.

A Note on the Organization of the Utah Standards in All Core Areas

American Constitutional Government and Citizenship core standards are organized into **strands**, which represent significant areas of learning within content areas. Depending on the core area, these strands may be designated by time periods, thematic principles, modes of practice, or other organizing principles.

Contact Person and Email: Meghan Everette, meghan.everette@schools.utah.gov

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Utah State Board of Education

UTAH CORE STATE STANDARDS for SOCIAL STUDIES

Within each strand are **standards**. A standard is an articulation of the demonstrated proficiency to be obtained. A standard represents an essential element of the learning that is expected. While some standards within a strand may be more comprehensive than others, all standards are essential for mastery.

Strand 1: AMERICAN FOUNDING PRINCIPLES

~~Requirements of Utah Code 53E-4-205.2. American constitutional govt and citizenship course standards~~

~~(172-175) Examine American founding principles, including:~~

- ~~• classical republicanism, natural rights, and colonial religious traditions; and~~
- ~~• the text and principles of the Declaration of Independence and relationship to the United States Constitution~~



The Declaration of Independence and the United States Constitution are guided by civic principles essential to the American experiment. In particular, classical republicanism, the natural rights tradition, and colonial religious traditions guided the Founders and continue to direct us today. An understanding of how these principles are applied to ordered liberty, constitutional government, and the rule of law is vital for responsible and effective citizenship.

The U.S. Constitution became the first complete written national constitution; before its creation, confederal principles were practiced in the Iroquois Constitution, the Articles of Confederation, and separation of powers within state constitutions. Students need to be able to see how the principles and virtues found in the Declaration of Independence and the U.S. Constitution are of continuing relevance to the issues we face in the present and appreciate the use of deliberation in fostering these principles and their vital results.

The following required primary source documents (or excerpts thereof) should be examined in this strand:

- The Mayflower Compact
- Iroquois Confederation
- Articles of Confederation

Contact Person and Email: Meghan Everette, meghan.everette@schools.utah.gov

This draft is for consideration during the August 7, 2026 Standards & Assessment Committee Meeting

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Utah State Board of Education

UTAH CORE STATE STANDARDS for SOCIAL STUDIES

- The Declaration of Independence

Possible Guiding Questions to Consider:

- What does the natural rights tradition argue about the value of each human being? How do debates about natural rights shape current political and social issues?
- What is a civic virtue, what does it mean to be a virtuous citizen, and why does civic virtue matter?
- In what ways does the idea of the “common good” influence laws and policies today?
- How should we navigate potential tensions between the common good and individual rights?
- How does adherence to the rule of law uphold the civic virtues of justice and equality? How does it produce freedom and safety?
- How does the Mayflower Compact and Declaration of Independence show the ability of individuals to come together and, through courage, prudence, and cooperation, make an impact in their own lives, in their communities, and in the course of history?
- In what ways does the Declaration of Independence continue to shape American identity and political practices?

STANDARDS

Standard 1.1: ~~Students will examine the classical types of regimes or forms of government, including those that rule for the common good, including monarchy, aristocracy, and republic (or mixed government) and those that work for the ruler’s good, including tyranny, oligarchy and direct democracy.~~

Students will evaluate the meaning of a republic and how it differs from other forms of government, including monarchy, aristocracy, tyranny, oligarchy, and direct democracy.

Standard 1.2: ~~Students will examine the classical republican tradition, including civic virtue, participation, representation, republican government, common good, and the rule of law. Students will apply core arguments to modern concerns and defend those claims.~~

Standard 1.3: ~~Students will examine the natural rights tradition, including the concepts of natural law, natural rights, consent of the governed, property rights, and social compact. Students will apply core arguments to current issues and defend their claims.~~

Standard 1.2: Students will understand the classical republican tradition (civic virtue, participation, representation, republican government, common good, the rule of law) and the natural rights tradition (the concepts of natural law, natural rights, consent of the governed,

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UTAH CORE STATE STANDARDS for SOCIAL STUDIES

property rights, social compact). Students will apply core arguments to current issues and defend their claims.

Standard 1.34: Students will analyze how politically relevant principles from diverse colonial religious traditions — such as Puritan covenant theology and self-governance, Anglican loyalty to the Crown and civil religion, Quaker religious tolerance and equality, and the democratizing effects of the First Great Awakening — influenced the American Founding and sparked debates about religious liberty, non-establishment of religion, religious pluralism, and toleration.

Standard 1.54: Students will analyze the Declaration of Independence and identify where the text refers to, or implies, the classical republican, natural rights, and colonial religious traditions. Students will also discuss the similarities and potential tensions between these traditions (such as between an emphasis on the common good and individual natural rights).

~~2.1 & 2.2~~**Standard 1.5 Combo:** Students will identify various ways peoples have organized themselves politically prior to the 1787 Constitutional Convention, including the Iroquois Constitution, the British constitutional tradition, the early state constitutions, and the confederal principles and institutions of the Articles of Confederation.

Standard 1.6: Students will identify and analyze the civic virtues and where they are referenced in the Declaration of Independence and where they are referenced, including decency and respect, truth and reason, justice, prudence, patience, courage, humility, magnanimity, faith, and honor.



~~**Standard 1.7:** Students will examine primary sources including identifying the source and its reliability, analyzing the creator's perspective, contextualizing, and evaluating the significance and lasting effect of each source.~~

Standard 1.78: Students will explore how ordinary citizens during the American independence movement applied the civic skills of working through local government, civic and religious associations, and the petition of representatives to effect political change.

Strand 2: STRUCTURE OF AMERICAN CONSTITUTIONAL GOVERNMENT

The U.S. Constitution embeds power in a federal system — that is, a compound constitutional republic where power is distributed by the people among national, state, and local governments as well as American Indian tribal governments established through treaties with the United States. The U.S. Constitution distributes authority between the legislative, executive, and judicial branches. This framework, wherein complete power resides in no

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single branch or level of government and in which those branches check and balance each other, was seen by the Framers as essential to good government. Developments and controversies involving federal structures and powers have, over time, clarified the responsibilities of each department or level of government.

The following required primary source documents (or excerpts thereof) should be examined in this strand:

- The U.S. Constitution
- Selected passages from the Federalist and Antifederalist papers, including
 - *Federalist* No. 1
 - *Federalist* No. 10, Brutus 1
 - *Federalist* Nos. 39, 45
 - *Federalist* No. 51
 - *Federalist* Nos. 57, 62
 - *Federalist* Nos. 68, 70
 - *Federalist* No. 78, Brutus 15
- Washington's Farewell Address
- Lincoln's critique of the Dred Scott decision

Guiding Questions to Consider:

- What forms of government protect life, liberty, and the pursuit of happiness? How?
- What are the strengths and weaknesses of a small republic versus a large republic?
- How did issues such as representation, executive power, and slavery shape the final Constitution?
- What were the core arguments for and against ratifying the U.S. Constitution? Which, if any of these questions and arguments are still prevalent in the United States today?
- What is federalism, and how did the Constitution create a balance between state and federal authority? How is *e pluribus unum* related to the concept of federalism? What are current events or issues that illustrate the relationship between national and state governments?
- In *Federalist* No. 51, Madison argues that a constitution "must first enable the government to control the governed; and in the next place oblige it to control itself." What does it mean for the government to "control itself" and why is that important? How can one keep governments from becoming tyrannical?

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- What is the separation of powers and why did the Framers of the U.S. Constitution think it essential for good government? What are some examples of *checks and balances* and the separation of powers at work in current events and issues?
- Are there circumstances in which the government might get better results when it is slow and deliberate? Are there circumstances when quick immediate and decisive action might be better?
- Is the will of the majority the only criterion of a good law? How are the rights of the minority protected against the will of the majority in a constitutional republic?
- What are the benefits and dangers of giving the executive power to a single person? How have presidential powers changed over time?
- Does the U.S. Constitution make one branch of government stronger than the others? Which is the least dangerous branch to liberty and which is the most?
- What impact does the role of the Supreme Court have on the powers of the executive and legislative branches?

STANDARDS

Standard 2.1: Students will analyze the processes and principal debates at the Constitutional Convention, including the insufficiencies of the Articles of Confederation, problems of representation (the Virginia and New Jersey plans), executive power and election, state versus federal authority, and the question of slavery.

Standard 2.2: Students will explain how the principles of separation of powers and checks and balances are implemented in the overall structure of the U.S. Constitution, by examining the U.S. Constitution and *Federalist* No. 51.

Standard 2.3: Through the study of Article I and *Federalist* Nos. 57 and 62, students will examine the distinct design and character of the House and Senate, the enumerated powers of Congress, the processes for how budgets and other bills become law, the appointment and impeachment of government officials, and the development of how political parties and committees shape Congress.

Standard 2.4: Through the study of Article II, *Federalist* Nos. 68 and 70, and the 12th, 20th, 22nd, and 25th Amendments, students will analyze the design and character of the Executive Branch, the electoral college, how the president's enumerated powers both empower and limit the presidency, and other major developments and controversies involving those powers, such as veto, appointment, commander-in-chief, executive bureaucracy, foreign policy, and executive orders and agreements.

Standard 2.5: Students will determine how the text of Article III and the Supremacy Clause of Article VI structure the federal court system, secure judicial independence, and empower the

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judiciary to interpret the Constitution, drawing on the arguments about the judiciary in *Federalist* No. 78 and Brutus 15.

Standard 2.6: Students will assess major developments (including the creation and elimination of courts, judicial majority and minority opinions) and controversies involving federal judicial structures and the role of the judiciary in interpreting and applying the Constitution and laws through a study of several landmark supreme court decisions. This examination will also include a discussion of Lincoln's critique of the *Dred Scott* decision.

Standard 2.7: Students will explain the core arguments of the debates over ratification of the U.S. Constitution, including the proper extent of a republic's power through study of *Federalist* Nos. 1 and 10, Brutus 1, and the need for a Bill of Rights.

Standard 2.8: Students will examine the principles and practice of federalism through a study of *Federalist* Nos. 39 and 45, and the Tenth Amendment.

Standard 2.9: Students will study and reflect upon the **civic skills and virtues** displayed in Washington's "Farewell Address," including those required for Constitutional fidelity and leadership, civic friendship and unity, the peaceful transfer of power, and citizenship.



Strand 2: **STRUCTURE OF AMERICAN CONSTITUTIONAL GOVERNMENT AND UNION**

~~Requirements 53E-4-205.2. American constitutional govt and citizenship course standards~~



~~(176-179) Examine the text of the United States Constitution, including:~~

- ~~• the principles and operation of federalism and the state constitutional tradition~~
- ~~• structure, powers, and limits of legislative, executive, and judicial branches~~



~~The U.S. Constitution embeds power in a federal system—that is, a compound constitutional republic where power is distributed by the people among national, state, and local governments as well as American Indian tribal governments established through treaties with the United States. The U.S. Constitution distributes authority between the legislative, executive, and judicial branches. This framework, wherein complete power resides in no single branch or level of government and in which those branches check and balance each other, was seen by the Framers as essential to good government. Developments and controversies involving federal structures and powers have, over time, clarified the responsibilities of each department or level of government.~~

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The following required primary source documents should be examined in this strand:

- The U.S. Constitution
- Selected passages from the *Federalist* and *Antifederalist* papers, including
 - *Federalist* No. 1
 - *Federalist* No. 10, Brutus 1
 - *Federalist* Nos. 39 and 45
 - *Federalist* No. 51
 - *Federalist* Nos. 57, 62
 - *Federalist* Nos. 68, 70
 - *Federalist* No. 78, Brutus 15
- Washington's Farewell Address
- Lincoln's critique of the Dred Scott decision

The U.S. Constitution was the first complete written national constitution. Before its creation, confederal principles were practiced in the Iroquois Constitution, the Articles of Confederation, and separation of powers within state constitutions. The U.S. Constitution embeds power in a federal system—that is, a compound constitutional republic where power is distributed by the people among national, state, and local governments as well as American Indian tribal governments established through treaties with the United States.



The following required primary source documents should be examined in this strand:

- The Iroquois Constitution
- Articles of Confederation
- U.S. Constitution
- Selected passages from the *Federalist* and *Antifederalist* papers, including
 - *Federalist* No. 1
 - *Federalist* No. 10, Brutus 1
 - *Federalist* Nos. 39 and 45



Possible Guiding Questions to Consider:

- What forms of government protect life, liberty, and the pursuit of happiness? How?
- What are the strengths and weaknesses of a small republic versus a large republic?
- How did issues such as representation, executive power, and slavery shape the final Constitution?
- What were the core arguments for and against ratifying the U.S. Constitution? Which, if any of these questions and arguments are still prevalent in the United States today?

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~~What is federalism, and how did the Constitution create a balance between state and federal authority? How is *e pluribus unum* related to the concept of federalism?~~

STANDARDS

~~**Standard 2.1:** Students will examine various ways peoples have organized themselves politically prior to 1787, including the Iroquois Constitution, the British Constitution, and the early state constitutions.~~

~~**Standard 2.2:** Students will examine the confederal principles and institutions of the Articles of Confederation, including the strengths and deficiencies of the Articles and the need for a new convention.~~

~~**Standard 2.3:** Students will compare how proposals at the Constitutional Convention, including the Virginia Plan and the New Jersey Plan, addressed problems raised by the experience under the Articles of Confederation.~~

~~**Standard 2.4:** Students will analyze the processes and principal topics of debate at the Convention, including representation in Congress, the power and election of the executive branch, state versus federal authority, and the question of slavery.~~

2.3 & 2.4 Combo: ~~Students will analyze the processes and principal debates at the Constitutional Convention that shaped the final Constitution, including the insufficiencies of the Articles of Confederation, problems of representation (the Virginia and New Jersey plans), executive power and election, state versus federal authority, and the question of slavery.~~

~~**Standard 2.5:** Students will examine the core arguments of the debates over ratification of the U.S. Constitution, including the proper extent of a republic through study of *Federalist* No. 10 and Brutus 1 and the need for a Bill of Rights.~~

~~**Standard 2.6:** Students will examine the principles and practice of federalism through a study of *Federalist* Nos. 39 and 45, and the Tenth Amendment.~~

~~**Standard 2.7:** Drawing lessons from the Constitutional Convention and sources in this strand, students will practice civil discourse, including the **civic skills** of formulating a sound argument, and persuasion, and compromise the **civic virtues** of courage, justice, moderation, and civic charity.~~

Strand 3: STRUCTURE OF AMERICAN GOVERNMENT

~~**Requirements 53E-4-205.2. American constitutional govt and citizenship course standards**~~

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~~(176-179) Examine the text of the United States Constitution, including:~~

- ~~Structure, powers, and limits of legislative, executive, and judicial branches~~



~~The U.S. Constitution distributes authority between the legislative, executive, and judicial branches. This framework, wherein complete power resides in no single branch or level of government and in which those branches check and balance each other, was seen by the Framers as essential to good government. Developments and controversies involving federal structures and powers have, over time, clarified the responsibilities of each department or level of government.~~



~~The following required primary source documents should be examined in this strand:~~

- ~~The U.S. Constitution~~
- ~~Selected passages from the *Federalist* and *Anti-Federalist* papers, including~~
 - ~~*Federalist* No. 51, Centinel 1~~
 - ~~*Federalist* Nos. 57, 62~~
 - ~~*Federalist* Nos. 68, 70~~
 - ~~*Federalist* No. 78, Brutus 15~~
- ~~Washington's Farewell Address~~
- ~~Lincoln's critique of the Dred Scott decision~~

~~**Possible Guiding Questions to Consider:**~~

- ~~How can one keep governments from becoming tyrannical?~~
- ~~In *Federalist* No. 51, Madison argues that a constitution “must first enable the government to control the governed; and in the next place oblige it to control itself.” What does it mean for the government to “control itself” and why is that important?~~
- ~~What is the separation of powers and why did the Framers of the U.S. Constitution think it essential for good government?~~
- ~~Are there circumstances in which the government might get better results when it is slow and deliberate? Are there circumstances when quick immediate and decisive action might be better?~~
- ~~Is the will of the majority the only criterion of a good law? How are the rights of the minority protected against the will of the majority in a constitutional republic?~~
- ~~What are the benefits and dangers of giving the executive power to a single person? How have presidential powers changed over time?~~

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- ~~Does the U.S. Constitution make one branch of government stronger than the others? Which is the least dangerous branch to liberty and which is the most?~~
- ~~What impact does the role of the Supreme Court have on the powers of the executive and legislative branches?~~
- ~~What are some examples of checks and balances and the separation of powers at work in current events and issues?~~
- ~~What are current events or issues that illustrate the relationship between national and state governments?~~

**STANDARDS**

Standard 3.1: Students will explain how the principles of separation of powers and checks and balances are implemented in the overall structure of the U.S. Constitution, by examining the U.S. Constitution and *Federalist* No. 51, and Centinel 1.

Standard 3.2: Students will examine the text of Article I, including the structures of the legislative branch (bicameralism, design of the House and Senate, and the compromise over representation) and how Congress's enumerated powers both empower and limit Congress, considering the arguments of *Federalist* Nos. 57 and 62.

Standard 3.3: Students will examine major functions (including lawmaking, budgeting, appointment and impeachment of government officials, oversight of the other branches), developments (including political parties and committees), and controversies involving federal legislative structures, powers, and practices.

3.2 & 3.3 Combo: Through study of Article I and *Federalists* 57 and 62, students will examine the distinct design and character of the House and Senate, the enumerated powers of Congress, the processes for how budgets and other bills become law, the appointment and impeachment of government officials, and the development of how political parties and committees shape Congress.

Standard 3.4: Students will examine the text of Article II and the 12th, 20th, 22nd, and 25th amendments, including the presidential selection system, the structures of the executive branch, and how the president's enumerated powers both empower and limit the presidency, considering the arguments of *Federalist* Nos. 68 and 70.

Standard 3.5: Students will examine major developments and controversies involving presidential powers (including the veto power, the appointment power, the commander-in-chief power, and executive orders and agreements), the federal bureaucracy, and political parties.

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Combo 3.4 & 3.5: Through study of Article II, Federalist 68 and 70, and the 12th, 20th, 22nd, and 25th Amendments, students will analyze the distinct design and character of the Executive Branch, the electoral college, how the president's enumerated powers both empower and limit the presidency, and other major developments and controversies involving those powers, such as veto, appointment, commander in chief, executive orders, and agreements. executive bureaucracy, foreign policy, and executive orders and agreements. ¶¶

¶¶

Students will examine Article II, the 12th, 20th, 22nd, and 25th amendments, and Federalist Nos. 68 and 70 to understand the executive branch's structure, presidential selection, and how enumerated powers both empower and limit the presidency. They will also analyze major developments and controversies involving presidential powers (veto, appointment, commander in chief, executive orders and agreements), the federal bureaucracy, and political parties. ¶¶

¶¶

Standard 3.6: Students will examine how the text of Article III and the Supremacy Clause of Article VI secure judicial independence and empower the judiciary to interpret the U.S. Constitution and laws, considering the arguments of *Federalist* No. 78 and Brutus 15. ¶¶

Standard 3.7: Students will identify the structure of the federal court system and the way the Supreme Court makes decisions, interprets texts, and writes their opinions by examining the facts, questions, rulings, and rationale included in court opinions. ¶¶

3.6 & 3.7 Combo: Students will examine how the text of Article III and the Supremacy Clause of Article VI structure the federal court system, secure judicial independence, and empower the judiciary to interpret the Constitution, drawing on the arguments about the judiciary in *Federalist* No. 78 and Brutus 15. ¶¶

Standard 3.8: Students will examine major developments (including the creation and elimination of courts, majority and minority opinions) and controversies involving federal judicial structures and the role of the judiciary in interpreting and applying the Constitution and laws through a study of several landmark supreme court decisions. This examination will also include a discussion of Lincoln's critique of the *Dred Scott* decision. ¶¶

Standard 3.9: Students will analyze how a bill becomes a law, how that law is enforced, and how it is applied and interpreted. ¶¶

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~~Standard 3.10: Students will examine how the principles and ideas expressed in the Declaration of Independence are expressed in or relate to the U.S. Constitution. Students will distinguish between writing a revolutionary document like the Declaration and writing a frame of government like the Constitution and explain differences between the documents.~~**Standard 3.11:** Drawing on the *Federalist*, *Antifederalist* and other examples from this strand, students will examine the **civic skill** of how to form a persuasive argument, including how to make a valid argument, how to avoid logical fallacies, and how to evaluate reasons and evidence.¶

~~Standard 3.12: Students will analyze the civic skills and virtues displayed in Washington's "Farewell Address," including those required for Constitutional fidelity and leadership, civic friendship and unity, the peaceful transfer of power, and citizenship.~~

Strand 34: DEVELOPMENT OF THE AMERICAN CONSTITUTION

~~Requirements 53E-4-205.2. American constitutional govt and citizenship course standards~~¶

¶

~~(180-185) Examine the development of the United States Constitution through amendments.~~¶

- ~~creation and application of the Bill of Rights~~¶
- ~~adoption and enforcement of the Civil War and Reconstruction Amendments~~¶
- ~~adoption and enforcement of the other voting rights amendments~~¶

NaturalCivil rights and **civil** liberties are codified in the Declaration of Independence and the U.S. Constitution. Those rights and liberties have been interpreted and extended over time to groups not originally included. With those rights and liberties come civic responsibilities. Students must understand the importance of natural rights and civil liberties for themselves, their families, and others. Students should be able to defend their own rights and the rights of others, understanding that the U.S. Constitution and its amendments help protect individuals who may not share their views.

The following required primary source documents (or excerpts thereof) should be examined in this strand:

- Selected passages from the *Federalist* and *Antifederalist* papers, including *Federalist* No. 84 and Brutus 2.
- The Bill of Rights (Amendments 1 – 10 in the U.S. Constitution)
- Speeches of Abraham Lincoln

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- Speeches of Frederick Douglass
- Seneca Falls Declaration of Sentiments
- Lincoln-Douglas Debates
- Civil War and Reconstruction Amendments (13, 14, 15)
- Letter from Birmingham Jail

Possible Guiding Questions to Consider:

- What are the natural rights and civil liberties articulated in the Declaration of Independence and in the U.S. Constitution? How have the rights and liberties in the Constitution been interpreted and extended over time? How have amendments changed who is included in "We the People"?
- What civic responsibilities and duties come with First Amendment rights?
- What limits exist on citizens' exercise of the freedoms of religion, speech, press, and petition? How are these rights protected in practice?
- How do the Second through Ninth Amendments protect citizens' rights? Why are rights of the accused fundamental in a free society?
- How do the arguments made by Abraham Lincoln, Frederick Douglass, Elizabeth Cady Stanton, Martin Luther King Jr., and others draw, or expand, upon the original natural rights tradition?
- After advances, such as like the Reconstruction Amendments, why was a Civil Rights Movement still needed?
- How did civil rights legislation in the 20th century further implement the purpose of the 13th, 14th, 15th, and 19th Amendments?

STANDARDS

Standard 34.1: Students will understand the text of Article V of the Constitution, including the roles of Congress, state legislatures, state conventions, and the people in enacting constitutional change.

Standard 34.2: Students will identify and evaluate arguments for and against a written bill of rights through an examination of *Federalist* No. 84 and Brutus 2.

Standard 34.3: Students will examine the text, principles, and interpretation of the First Amendment's protection of the freedoms of religion, speech, press, assembly, and petition, and discuss the relationship between rights and responsibilities of citizens.

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Standard 34.4: Students will examine the text, principles, and interpretation of the Second through Ninth Amendments, ~~including the right to bear arms and the rights of the accused~~, as well as Habeas Corpus in Article I, Section 9.

~~**Standard 4.5:** Students will examine abolitionists' changing views of the Declaration of Independence and the U.S. Constitution, including an examination of Fredrick Douglass' "What to the Slave Is the Fourth of July?" and "The American Constitution and the Slave: An Address Delivered in Glasgow, Scotland."~~

~~**Standard 4.6:** Students will examine abolitionists' changing views of the Declaration of Independence, and the U.S. Constitution. Students will examine and Stephen Douglas' popular sovereignty doctrine and Abraham Lincoln's issues of natural law and natural rights response, through a study of employing the Lincoln-Douglas "Ottawa Debate," and Frederick Douglass' speeches. "What to the Slave Is the Fourth of July?" and "The American Constitution and the Slave: An Address Delivered in Glasgow, Scotland."~~

Combo-Standard 43.5 and 4.6: Students will articulate differing views of the principles in the Declaration of Independence, the U.S. Constitution, and issues of natural law and natural rights, through a study of the Lincoln-Douglas "Ottawa Debate" and Frederick Douglass' speeches "What to the Slave Is the Fourth of July?" and "The American Constitution and the Slave: An Address Delivered in Glasgow, Scotland."

Standard 4.73.6: Standard 3.6: Students will evaluate the history, text, principles, and enforcement provisions of the Civil War and Reconstruction Amendments (13th, 14th, and 15th), as well as initial attempts to enforce them; additionally, students will evaluate the eventual enforcement of these amendments during the Civil Rights movement of the 20th century, civil rights legislation, and related Supreme Court decisions.

~~Students will examine the history, text, principles, and enforcement provisions of the Civil War and Reconstruction Amendments (13th, 14th, and 15th), as well as initial attempts to enforce them in the 19th century; they will also examine the incorporation of the Bill of Rights through the 14th Amendment and the establishment of national citizenship and the application of naturalization policies over time.~~

Standard 3.7: Students will examine the clauses (privileges or immunities, due process, equal protection, citizenship) of the 14th Amendment, including the incorporation of the Bill of Rights, the establishment of national citizenship, and the application of naturalization policies over time.

Standard 3.8: Students will analyze suffrage movements in the United States using the "Declaration of Sentiments" and the 14th, 15th, 19th, 24th and 26th Amendments as well as the ongoing debates over voting rights. Students will investigate Utah women's suffrage through the Utah Constitution, as it relates to the national effort for women's right to vote.

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~~Standard 3.74.8: Students will examine the Women's Suffrage and 20th-century Civil Rights Movements and enforcement of Reconstruction Amendments and voting rights using the "Declaration of Sentiments," and the text, principles, and interpretation of the 14th, 15th, 19th, 24th and 26th Amendments; and Martin Luther King's "Letter from Birmingham Jail." Students will investigate Utah women's suffrage, including through the Utah Constitution, as it relates to the national effort for women's right to vote.~~

Standard 3.94.9: Students will determine the **civic skills and virtues** required for constitutional fidelity and civic friendship in times of political change and social division, through a study of Lincoln's "Gettysburg Address" and "Second Inaugural Address," ~~and~~ Fredrick Douglass' "Oration in Memory of Abraham Lincoln," ~~and~~ Martin Luther King's "Letter from Birmingham Jail," including the **civic skills** of petition and persuasion, and the **civic virtues** of prudence, justice, courage, humility, duty, moderation, and civic charity.

Strand 4: PRACTICING CONSTITUTIONAL CITIZENSHIP

~~Requirements 53E-4-205.2. American constitutional govt and citizenship course standards~~



~~(186-191) Examine the practice of self-government at the state and local level, including:~~

- ~~• the Utah Constitution and local governments, including counties, municipalities, and tribal governments~~
- ~~• state and local elections, including current candidate nomination and selection~~
- ~~• the responsibilities of citizenship and participation in civil society~~



Our nation's future rests on the ability and willingness of every generation to fulfill their civic responsibilities. ~~P~~Civic participants in the American experiment practice self-government and nurture civic knowledge, skills, dispositions and virtues. They also engage at the federal, state, and local levels, using a range of strategies and methods to protect rights and seek the common good. Civic leadership and participation are available through political office and affiliation; non-governmental and civic organizations; religious groups, clubs, **local organizations, schools, and more.**

~~and local organizations, and more.~~

The following required primary source documents (~~or excerpts thereof~~) should be examined in this strand:

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- The Utah State Constitution
- [UT Legislature website \(https://le.utah.gov/\)](https://le.utah.gov/)
- The U.S. Constitution

Possible Guiding Questions to Consider:

- What is the relationship between a successful, functioning republic and a civically responsible and virtuous population? What civic skills and virtues are needed for both effective self-government and for limited, responsible governance by leaders and institutions?
- What does it mean to be an active and informed voter? How can self-governing citizens participate in the political process?
- How do community and civic groups contribute to a healthy republic? How does participation in civil society — including civic organizations, neighborhood associations, faith communities, [schools](#), etc. — prepare citizens for civic and political life and strengthen communities?
- What does it mean to be an American? What are key elements of American political culture? How do the rights and responsibilities in our founding documents influence our political culture and identity today, including in Utah?
- Among all our differences and diversity, in what ways [does](#) the Declaration of Independence and our Constitution unite us as Americans?
- How can the ideas and principles of the Utah Constitution connect us as Utahns?
- What similarities and differences exist between the structure of government and institutions contained in the Utah Constitution and the U.S. Constitution?
- What similarities and differences exist between the U.S. Bill of Rights and the Utah Constitution?

STANDARDS

Standard 4.1: Students will analyze the Utah Constitution, including the state government that it created, the rights and principles it protected, and examine how the process through which state and local laws are created, enforced, and interpreted.

Standard 4.2: Students will examine the practice of self-government at the state and local levels, including town, county, municipality, and tribal government decisions on budgeting, taxation, debt, and other government responsibilities.

Standard 4.3: Students will understand the qualifications, roles, and oaths of office of local elected officers such as mayors, council members, school board members, auditors, treasurers, clerks, sheriffs, county commissioners, district or county attorneys, and tribal leaders.

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Standard 4.4: Students will investigate the election process, including party platforms, caucuses, conventions, primaries, districting, funding, and campaigns while also understanding how individual citizens may participate.

Standard 4.5: Students will describe the influence of families, community groups, religious and educational organizations, and other civic associations in developing the social capital, civic skills, and civic virtues necessary to perpetuate constitutional self-government and the pursuit of happiness.

Standard 4.6: Students will analyze how the media inform citizens and influence public opinion. Students will also demonstrate the civic responsibility and **skills** needed to critically evaluate media sources for accuracy, credibility, bias, evidence, and logical reasoning.

Standard 4.7: Students will practice the **civic skills** of everyday citizenship by identifying a local problem, considering the best resources, stakeholders, and civic or political organizations (such as businesses, city councils, chambers of commerce, community and religious organizations, etc.) for addressing it; and proposing possible solutions including which level of government is authorized and best equipped to handle different current issues and defend their rationale.

~~Standard 5.1: Students will analyze the structure, rights, protections, and other principles of the Utah State Constitution and compare and contrast them to the U.S. Constitution; students will also analyze the role of federalism and divided authority within our constitutional system. ¶~~

~~Standard 5.2: Students will analyze how, at the state and local levels, a bill becomes a law, how that law is enforced, and how it is applied and interpreted, at the state and local levels. COMBO~~

~~Standard 5.1 & 5.2: Students will analyze the Utah Constitution, including the state government that it created, the rights and principles it protected, and examine how the process through which state and local laws are created, enforced, and interpreted. ¶~~

~~Standard 5.3: Students will examine the practice of self-government at the state and local levels, including town, county, municipality, and tribal government, and make recommendations regarding which level of government is authorized and best equipped to handle different current issues and defend their rationale. ¶~~

~~Standard 5.4: Students will analyze how budgeting, taxation, and debt relate to government. ¶~~

~~COMBO Standard 5.3 & 5.4: Students will examine the practice of self-government at the state and local levels, including town, county, municipality, and tribal government decisions on budgeting, taxation, and debt, and other government responsibilities. ¶~~

~~Standard 5.5: Students will analyze the qualifications, and roles, and oaths of office of local elected officers such as mayors, council members, school board members, auditors, treasurers, clerks, sheriffs, county commissioners, district or county attorneys, and tribal leaders. ¶~~

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~~Standard 5.6: Students analyze various oaths required of local, state (Article IV Section 10 of the Utah Constitution) and national representatives (Article VI Clause 3 and Article II Section 1 Clause 8 of the Constitution of the United States), members of the military (Uniformed Code of Military Justice), and naturalized citizens (Oath of Allegiance) to uphold and defend the Constitution of the United States while also reflecting upon their own relationship and responsibilities to the Constitution. Students will also identify the skills and civic virtues local leaders require to fulfil their constitutional oaths and civic responsibilities.~~

~~Standard 5.7: Students will analyze how citizens can participate in elections, including through state and local political parties, campaigns, the candidate nomination and selection processes in caucuses and conventions, becoming informed voters, and registering and voting in elections.~~

~~Students will analyze the election process, including caucuses, conventions, primaries, districting, and campaigns while also outlining the role of citizens.~~

~~Standard 5.8: Students will reflect on and write about what it means to be an American, by drawing on the Declaration of Independence, the U.S. Constitution, and other principles from this course, including the rights, responsibilities, and virtues necessary for the perpetuation of constitutional government.~~

~~Standard 5.9: Students will analyze the role of families, community groups, religious organizations, and other civic associations in developing the social capital, civic skills, and civic virtues necessary to perpetuate constitutional self-government and the pursuit of happiness.~~

~~Standard 5.9: Students will analyze the influence of families, community groups, religious organizations, and other civic associations in developing the social capital, civic skills, and civic virtues within the American Constitutional system.~~

~~Standard 5.10: Students will analyze the role of local, state, and national media in educating citizens and influencing their views and the responsibility of citizens to hone the civic skills to evaluate media sources for accuracy, bias, and good reasoning/logical fallacies.~~

~~Standard 5.11: Students will practice the civic skills of everyday citizenship by identifying a local problem, considering the best resources, stakeholders, and civic or political organizations (such as businesses, city councils, chambers of commerce, community and religious organizations, etc.) for addressing it, and proposing possible solutions including which.~~

~~level of government is authorized and best equipped to handle different current issues and defend their rationale.~~

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UTAH CORE STATE STANDARDS for SOCIAL STUDIES

AMERICAN CONSTITUTIONAL GOVERNMENT & CITIZENSHIP

Course Description

A self-governing constitutional republic depends on its citizens' knowledge, understanding, engagement, and appreciation of its laws and constitution. **The goal of this course** is to acquaint students with the American constitutional tradition, and to equip students with the knowledge, skills, dispositions, and virtues necessary for upholding our constitutional republic. The name of the course, "**American Constitutional Government and Citizenship**," emphasizes this focus on the U.S. Constitution, individual liberties, and informed and dedicated citizenship. This course requires a study of the historical foundations, development over time, and current application of these concepts.

The Declaration of Independence and The Constitution of the United States are the guiding elements of this course. The course will use these and other important primary sources to cover five strands that derive from Utah Code 53E-4-205.21:

1. American Founding Principles
2. Structures of American Constitutional Government
3. Development of the American Constitution
4. Practicing Constitutional Citizenship

Upon completion of this course, students will have gained civic knowledge about the major ideas, institutions, and practices that shape the life of a citizen in the United States. Additionally, students will recognize and practice the civic skills needed to express opinions, work with others to solve problems, navigate commitment to principles while recognizing the place of compromise, weigh evidence, think critically, make informed decisions, and participate in government processes. This course nurtures a commitment to the American ideals of liberty, justice, courage, civic charity, cooperation, and integrity. This course is **recommended for juniors or seniors** due to their proximity to voting age. The first semester of the course (Strands 1-2) **must be taken before** the second (Strands 3-4).

Principles of Civic Preparation

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UTAH CORE STATE STANDARDS for SOCIAL STUDIES

One of the fundamental purposes for public schools is the preparation of young people for citizenship in America's constitutional republic. The future flourishing of our communities—local, state, and national—rests upon the preparation of young people to find solutions to common problems; defend natural rights and civil liberties for themselves, their families, and others; and take responsibility for the common good. Social studies and history classrooms are an important venue in which to develop civic skills, nurture civic virtues, and teach civic knowledge. They are also places to develop attachments to the Constitution and laws, consider current issues, and increase understanding of the world and its peoples. These civic skills, habits of mind, and qualities of character will better prepare students to recognize and accept responsibility for preserving and defending the freedom secured by the Constitution.

To reach these ends, students should have ample opportunities to employ civic knowledge, skills, dispositions and virtues.

Civic skills include but are not limited to:

- **Decision-making skills** exercised with fellow-citizens, such as expressing an opinion, interacting and recognizing the perspectives of other stakeholders, working with others to solve problems, and navigating commitment to principles while recognizing the place of compromise.
- **Communication skills**, such as writing, speaking, and presenting; language proficiency; the ability to communicate and persuasively defend principles; use of public platforms to share knowledge; and active and respectful listening.
- **Rational thinking skills**, including carefully collecting and weighing information; seeking and discerning true principles; crafting evidence-based arguments; and avoiding logical fallacies.
- **Organizational skills**, including effectively organizing, networking, and collaborating with others in their neighborhoods, communities, states, and nation; and utilizing civic and political organizations to participate in decision-making processes and solve community problems.
- **Source evaluation skills**, including how to thoughtfully read primary sources and interpret media claims, identifying principal arguments and assumptions, analyzing the creator's perspective and reliability, contextualizing, and evaluating the significance and lasting effect of each source.

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UTAH CORE STATE STANDARDS for SOCIAL STUDIES

Civic dispositions and virtues include but are not limited to:

- **Integrity, Truthfulness, and Honor:** Demonstrating trustworthiness by keeping one's promises, telling the truth, and countering falsehoods.
- **Courage and Willingness to Sacrifice:** Standing firm on principles, even when it is unpopular, and taking constructive action in the face of fear, danger, or criticism.
- **Civic Charity:** Recognizing the worth of all human beings and responsibly seeking the well-being of one's family, neighbors, fellow citizens, and country.
- **Justice:** Understanding and upholding what is fair and right; respecting the dignity, liberty, and natural and civil rights of others; seeking laws that establish justice.
- **Wisdom and Prudence:** Good judgment; discerning right; correctly deciding what is most just, proper, and useful for a particular situation.
- **Moderation and Cooperation:** Exercising caution towards extremes; acting temperately, especially in attitudes towards adversaries; working together for a common civic end.

Note: For the purposes of this course, “civic dispositions” and “civic virtues” share the same meaning. However, the language of civic virtues will be used because it is the language of the Declaration of Independence and other assigned primary sources and will thus better connect the students with them. A virtue is a consistent habit of choosing what is good, just, and right.

A Note on the Organization of the Utah Standards in All Core Areas

American Constitutional Government and Citizenship core standards are organized into **strands**, which represent significant areas of learning within content areas. Depending on the core area, these strands may be designated by time periods, thematic principles, modes of practice, or other organizing principles.

Within each strand are **standards**. A standard is an articulation of the demonstrated proficiency to be obtained. A standard represents an essential element of the learning that is expected. While some standards within a strand may be more comprehensive than others, all standards are essential for mastery.

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**UTAH CORE STATE STANDARDS for SOCIAL STUDIES****Strand 1: AMERICAN FOUNDING PRINCIPLES**

The Declaration of Independence and the United States Constitution are guided by civic principles essential to the American experiment. In particular, classical republicanism, the natural rights tradition, and colonial religious traditions guided the Founders and continue to direct us today. An understanding of how these principles are applied to ordered liberty, constitutional government, and the rule of law is vital for responsible and effective citizenship. The U.S. Constitution became the first complete written national constitution; before its creation, confederal principles were practiced in the Iroquois Constitution, the Articles of Confederation, and separation of powers within state constitutions. Students need to be able to see how the principles and virtues found in the Declaration of Independence and the U.S. Constitution are of continuing relevance to the issues we face in the present and appreciate the use of deliberation in fostering these principles and their vital results.

The following required primary source documents (or excerpts thereof) should be examined in this strand:

- The Mayflower Compact
- Iroquois Confederation
- Articles of Confederation
- The Declaration of Independence

Guiding Questions to Consider:

- What does the natural rights tradition argue about the value of each human being? How do debates about natural rights shape current political and social issues?
- What is a civic virtue, what does it mean to be a virtuous citizen, and why does civic virtue matter?
- In what ways does the idea of the “common good” influence laws and policies today? How should we navigate potential tensions between the common good and individual rights?
- How does adherence to the rule of law uphold the civic virtues of justice and equality? How does it produce freedom and safety?
- How do the Mayflower Compact and Declaration of Independence show the ability of individuals to come together and, through courage, prudence, and cooperation, make an impact in their own lives, their communities, and the course of history?

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UTAH CORE STATE STANDARDS for SOCIAL STUDIES

- In what ways does the Declaration of Independence continue to shape American identity and political practices?

STANDARDS

Standard 1.1: Students will evaluate the meaning of a republic and how it differs from other forms of government, including monarchy, aristocracy, tyranny, oligarchy, and direct democracy.

Standard 1.2: Students will understand the classical republican tradition (civic virtue, participation, representation, republican government, common good, the rule of law) and the natural rights tradition (natural law, natural rights, consent of the governed, property rights, social compact). Students will apply core arguments to current issues and defend their claims.

Standard 1.3: Students will analyze how politically relevant principles from diverse colonial religious traditions influenced the American Founding and sparked debates about religious liberty, non-establishment of religion, religious pluralism, and toleration.

Standard 1.4: Students will analyze the Declaration of Independence and identify where the text refers to, or implies, the classical republican, natural rights, and colonial religious traditions. Students will also discuss the similarities and potential tensions between these traditions (such as between an emphasis on the common good and individual natural rights).

Standard 1.5: Students will identify various ways peoples have organized themselves politically prior to the 1787 Constitutional Convention, including the Iroquois Constitution, the British constitutional tradition, the early state constitutions, and the confederal principles and institutions of the Articles of Confederation.

Standard 1.6: Students will identify and analyze the **civic virtues** in the Declaration of Independence and where they are referenced, including decency and respect, truth and reason, justice, prudence, patience, courage, humility, magnanimity, faith, and honor.

Standard 1.7: Students will explore how ordinary citizens during the American independence movement applied the **civic skills** of working through local government, civic and religious associations, and the petition of representatives to effect political change.

Strand 2: STRUCTURE OF AMERICAN CONSTITUTIONAL GOVERNMENT

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**UTAH CORE STATE STANDARDS for SOCIAL STUDIES**

The U.S. Constitution embeds power in a federal system — that is, a compound constitutional republic where power is distributed by the people among national, state, and local governments as well as American Indian tribal governments established through treaties with the United States. The U.S. Constitution distributes authority between the legislative, executive, and judicial branches. This framework, wherein complete power resides in no single branch or level of government and in which those branches check and balance each other, was seen by the Framers as essential to good government. Developments and controversies involving federal structures and powers have, over time, clarified the responsibilities of each department or level of government.

The following required primary source documents (or excerpts thereof) should be examined in this strand:

- The U.S. Constitution
- Selected passages from the Federalist and Antifederalist papers, including
 - *Federalist* No. 1
 - *Federalist* No. 10, Brutus 1
 - *Federalist* Nos. 39, 45
 - *Federalist* No. 51
 - *Federalist* Nos. 57, 62
 - *Federalist* Nos. 68, 70
 - *Federalist* No. 78, Brutus 15
- Washington's Farewell Address
- Lincoln's critique of the Dred Scott decision

Guiding Questions to Consider:

- What forms of government protect life, liberty, and the pursuit of happiness? How?
- What are the strengths and weaknesses of a small republic versus a large republic?
- How did issues such as representation, executive power, and slavery shape the final Constitution?
- What were the core arguments for and against ratifying the U.S. Constitution? Which, if any of these questions and arguments are still prevalent in the United States today?
- What is federalism, and how did the Constitution create a balance between state and federal authority? How is *e pluribus unum* related to the concept of federalism? What are current events or issues that illustrate the relationship between national and state governments?

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- In Federalist No. 51, Madison argues that a constitution “must first enable the government to control the governed; and in the next place oblige it to control itself.” What does it mean for the government to “control itself” and why is that important? How can one keep governments from becoming tyrannical?
- What is the separation of powers and why did the Framers of the U.S. Constitution think it essential for good government? What are some examples of *checks and balances* and the separation of powers at work in current events and issues?
- Are there circumstances in which the government might get better results when it is slow and deliberate? Are there circumstances when quick immediate and decisive action might be better?
- Is the will of the majority the only criterion of a good law? How are the rights of the minority protected against the will of the majority in a constitutional republic?
- What are the benefits and dangers of giving the executive power to a single person? How have presidential powers changed over time?
- Does the U.S. Constitution make one branch of government stronger than the others? Which is the least dangerous branch to liberty and which is the most?
- What impact does the role of the Supreme Court have on the powers of the executive and legislative branches?

STANDARDS

Standard 2.1: Students will analyze the processes and principal debates at the Constitutional Convention, including the insufficiencies of the Articles of Confederation, problems of representation (the Virginia and New Jersey plans), executive power and election, state versus federal authority, and the question of slavery.

Standard 2.2: Students will explain how the principles of separation of powers and checks and balances are implemented in the overall structure of the U.S. Constitution, by examining the U.S. Constitution and *Federalist* No. 51.

Standard 2.3: Through the study of Article I and *Federalist* Nos. 57 and 62, students will examine the distinct design and character of the House and Senate, the enumerated powers of Congress, the processes for how budgets and other bills become law, the appointment and impeachment of government officials, and the development of how political parties and committees shape Congress.

Standard 2.4: Through the study of Article II, *Federalist* Nos. 68 and 70, and the 12th, 20th, 22nd, and 25th Amendments, students will analyze the design and character of the Executive Branch, the electoral college, how the president’s enumerated powers both empower and

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limit the presidency, and other major developments and controversies involving those powers, such as veto, appointment, commander-in-chief, executive bureaucracy, foreign policy, and executive orders and agreements.

Standard 2.5: Students will determine how the text of Article III and the Supremacy Clause of Article VI structure the federal court system, secure judicial independence, and empower the judiciary to interpret the Constitution, drawing on the arguments about the judiciary in *Federalist* No. 78 and Brutus 15.

Standard 2.6: Students will assess major developments (including the creation and elimination of courts, judicial review, majority and minority opinions) and controversies involving federal judicial structures and the role of the judiciary in interpreting and applying the Constitution and laws through a study of several landmark supreme court decisions. This examination will also include a discussion of Lincoln's critique of the *Dred Scott* decision.

Standard 2.7: Students will explain the core arguments of the debates over ratification of the U.S. Constitution, including the proper extent of a republic's power through the study of *Federalist* Nos. 1 and 10, Brutus 1, and the need for a Bill of Rights.

Standard 2.8: Students will examine the principles and practice of federalism through a study of *Federalist* Nos. 39 and 45, and the Tenth Amendment.

Standard 2.9: Students will study and reflect upon the **civic skills and virtues** displayed in Washington's "Farewell Address," including those required for Constitutional fidelity and leadership, civic friendship and unity, the peaceful transfer of power, and citizenship.

Strand 3: DEVELOPMENT OF THE AMERICAN CONSTITUTION

Natural rights and civil liberties are codified in the Declaration of Independence and the U.S. Constitution. Those rights and liberties have been interpreted and extended over time to groups not originally included. With those rights and liberties come civic responsibilities. Students must understand the importance of natural rights and civil liberties for themselves, their families, and others. Students should be able to defend their own rights and the rights of others, understanding that the U.S. Constitution and its amendments help protect individuals who may not share their views.

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**UTAH CORE STATE STANDARDS for SOCIAL STUDIES**

The following required primary source documents (or excerpts thereof) should be examined in this strand:

- Selected passages from the Federalist and Antifederalist papers, including *Federalist* No. 84 and Brutus 2.
- The Bill of Rights (Amendments 1 – 10 in the U.S. Constitution)
- Speeches of Abraham Lincoln
- Speeches of Frederick Douglass
- Seneca Falls Declaration of Sentiments
- Lincoln-Douglas Debates
- Civil War and Reconstruction Amendments (13, 14, 15)
- Letter from Birmingham Jail

Guiding Questions to Consider:

- What are the natural rights and civil liberties articulated in the Declaration of Independence and in the U.S. Constitution? How have the rights and liberties in the Constitution been interpreted and extended over time? How have amendments changed who is included in “We the People”?
- What civic responsibilities and duties come with First Amendment rights?
- What limits exist on citizens’ exercise of the freedoms of religion, speech, press, and petition? How are these rights protected in practice?
- How do the Second through Ninth Amendments protect citizens' rights? Why are rights of the accused fundamental in a free society?
- How do the arguments made by Abraham Lincoln, Frederick Douglass, Elizabeth Cady Stanton, Martin Luther King, Jr. ,and others draw or expand upon the original natural rights tradition?
- After advances, such as the Reconstruction Amendments, why was the Civil Rights Movement still needed?
- How did civil rights legislation in the 20th century further implement the purpose of the 13th, 14th, 15th, and 19th Amendments?

STANDARDS

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**UTAH CORE STATE STANDARDS for SOCIAL STUDIES**

Standard 3.1: Students will understand the text of Article V of the Constitution, including the roles of Congress, state legislatures, state conventions, and the people in enacting constitutional change.

Standard 3.2: Students will identify and evaluate arguments for and against a written bill of rights through an examination of *Federalist* No. 84 and Brutus 2.

Standard 3.3: Students will examine the text, principles, and interpretation of the First Amendment's protection of the freedoms of religion, speech, press, assembly, and petition, and discuss the relationship between rights and responsibilities of citizens.

Standard 3.4: Students will examine the text, principles, and interpretation of the Second through Ninth Amendments, as well as Habeas Corpus in Article I, Section 9.

Standard 3.5: Students will articulate differing views of the principles in the Declaration of Independence, the U.S. Constitution, and issues of natural law and natural rights, through a study of the Lincoln-Douglas "Ottawa Debate" and Frederick Douglass' speeches "What to the Slave Is the Fourth of July?" and "The American Constitution and the Slave: An Address Delivered in Glasgow, Scotland."

Standard 3.6: Students will evaluate the history, text, principles, and enforcement provisions of the Civil War and Reconstruction Amendments (13th, 14th, and 15th), as well as initial attempts to enforce them; additionally, students will evaluate the eventual enforcement of these amendments during the Civil Rights movement of the 20th century, civil rights legislation, and related Supreme Court decisions.

Standard 3.7: Students will examine the clauses (privileges or immunities, due process, equal protection, citizenship) of the 14th Amendment, including the incorporation of the Bill of Rights, the establishment of national citizenship, and the application of naturalization policies over time.

Standard 3.8: Students will analyze suffrage movements in the United States using the "Declaration of Sentiments" and the 14th, 15th, 19th, 24th and 26th Amendments as well as the ongoing debates over voting rights. Students will investigate Utah women's suffrage through the Utah Constitution, as it relates to the national effort for women's right to vote.

Standard 3.9: Students will determine the **civic skills and virtues** required for constitutional fidelity and civic friendship in times of political change and social division, through a study of Lincoln's "Gettysburg Address" and "Second Inaugural Address;" Fredrick Douglass' "Oration in Memory of Abraham Lincoln," and Martin Luther King's "Letter from Birmingham Jail," including the **civic skills** of petition and persuasion, and the **civic virtues** of prudence, justice, courage, humility, duty, moderation, and civic charity.

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**UTAH CORE STATE STANDARDS for SOCIAL STUDIES****Strand 4: PRACTICING CONSTITUTIONAL CITIZENSHIP**

Our nation's future rests on the ability and willingness of every generation to fulfill their civic responsibilities. Participants in the American experiment practice self-government and nurture civic knowledge, skills, dispositions and virtues. They also engage at the federal, state, and local levels, using a range of strategies and methods to protect rights and seek the common good. Civic leadership and participation are available through political office and affiliation; non-governmental and civic organizations; religious groups, clubs, local organizations, schools, and more.

The following required primary source documents (or excerpts thereof) should be examined in this strand:

- The Utah State Constitution
- UT Legislature website (<https://le.utah.gov/>)
- The U.S. Constitution

Guiding Questions to Consider:

- What is the relationship between a successful, functioning republic and a civically responsible and virtuous population? What civic skills and virtues are needed for both effective self-government and for limited, responsible governance by leaders and institutions?
- What does it mean to be an active and informed voter? How can citizens participate in the political process?
- How do community and civic groups contribute to a healthy republic? How does participation in civil society — including civic organizations, neighborhood associations, faith communities, schools, etc. — prepare citizens for civic and political life and strengthen communities?
- What does it mean to be an American? What are key elements of American political culture? How do the rights and responsibilities in our founding documents influence our political culture and identity today, including in Utah?
- Among all our differences and diversity, in what ways do the Declaration of Independence and our Constitution unite us as Americans?
- How can the ideas and principles of the Utah Constitution connect us as Utahns?

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UTAH CORE STATE STANDARDS for SOCIAL STUDIES

- What similarities and differences exist between the structure of government and institutions contained in the Utah Constitution and the U.S. Constitution?
- What similarities and differences exist between the U.S. Bill of Rights and the Utah Constitution?

STANDARDS

Standard 4.1: Students will identify elements of the Utah Constitution, including the state government that it created, the rights and principles it protected, and examine the process through which state and local laws are created, enforced, and interpreted.

Standard 4.2: Students will examine the practice of self-government at the state and local levels, including town, county, municipality, and tribal government decisions on budgeting, taxation, debt, and other government responsibilities.

Standard 4.3: Students will understand the qualifications, roles, and oaths of office of local elected officers such as mayors, council members, school board members, auditors, treasurers, clerks, sheriffs, county commissioners, district or county attorneys, and tribal leaders.

Standard 4.4: Students will investigate the election process, including party platforms, caucuses, conventions, primaries, districting, funding, and campaigns while also understanding how individual citizens may participate.

Standard 4.5: Students will describe the influence of families, community groups, religious and educational organizations, and other civic associations in developing the social capital, civic skills, and civic virtues necessary to perpetuate constitutional self-government and the pursuit of happiness.

Standard 4.6: Students will analyze how the media informs citizens and influences public opinion. Students will also demonstrate the civic responsibility and **skills** needed to critically evaluate media sources for accuracy, credibility, bias, evidence, and logical reasoning.

Standard 4.7: Students will practice the **civic skills** of everyday citizenship by identifying a local problem, considering the best resources, stakeholders, and civic or political organizations (such as businesses, city councils, chambers of commerce, community and religious organizations, etc.) for addressing it; and proposing possible solutions including which level of government is authorized and best equipped to handle different current issues and defend their rationale.

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UTAH CORE STATE STANDARDS for SOCIAL STUDIES

AMERICAN CONSTITUTIONAL GOVERNMENT & CITIZENSHIP

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UTAH CORE STATE STANDARDS for SOCIAL STUDIES

Principles of Civic Preparation

One of the fundamental purposes for public schools is the preparation of young people for citizenship in America's constitutional republic. The future flourishing of our communities—local, state, and national—rests upon the preparation of young people to find solutions to common problems; defend natural rights and civil liberties for themselves, their families, and others; and take responsibility for the common good. Social studies and history classrooms are an important venue in which to develop civic skills, nurture civic virtues, and teach civic knowledge. They are also places to develop attachments to the Constitution and laws, consider current issues, and increase understanding of the world and its peoples. These civic skills, habits of mind, and qualities of character will better prepare students to recognize and accept responsibility for preserving and defending the freedom secured by the Constitution.

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- **Communication skills**, such as writing, speaking, and presenting; language proficiency; the ability to communicate and persuasively defend principles; use of public platforms to share knowledge; and active and respectful listening.
- **Rational thinking skills**, including carefully collecting and weighing information; seeking and discerning true principles; crafting evidence-based arguments; and avoiding logical fallacies.
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- **Source evaluation skills**, including how to thoughtfully read primary sources and interpret media claims, identifying principal arguments and assumptions, analyzing the creator's perspective and reliability, contextualizing, and evaluating the significance and lasting effect of each source.

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Civic dispositions and virtues include but are not limited to:

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- **Courage and Willingness to Sacrifice:** Standing firm on principles, even when it is unpopular, and taking constructive action in the face of fear, danger, or criticism.
- **Civic Charity:** Recognizing the worth of all human beings and responsibly seeking the well-being of one's family, neighbors, fellow citizens, and country.
- **Justice:** Understanding and upholding what is fair and right; respecting the dignity, liberty, and natural and civil rights of others; seeking laws that establish justice.
- **Wisdom and Prudence:** Good judgment; discerning right; correctly deciding what is most just, proper, and useful for a particular situation.
- **Moderation and Cooperation:** Exercising caution towards extremes; acting temperately, especially in attitudes towards adversaries; working together for a common civic end.

Note: For the purposes of this course, “civic dispositions” and “civic virtues” share the same meaning. However, the language of civic virtues will be used because it is the language of the Declaration of Independence and other assigned primary sources and will thus better connect the students with them. A virtue is a consistent habit of choosing what is good, just, and right.

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UTAH CORE STATE STANDARDS for SOCIAL STUDIES

Strand 1: AMERICAN FOUNDING PRINCIPLES

The Declaration of Independence and the United States Constitution are guided by civic principles essential to the American experiment. In particular, classical republicanism, the natural rights tradition, and colonial religious traditions guided the Founders and continue to direct us today. An understanding of how these principles are applied to ordered liberty, constitutional government, and the rule of law is vital for responsible and effective citizenship. The U.S. Constitution became the first complete written national constitution; before its creation, confederal principles were practiced in the Iroquois Constitution, the Articles of Confederation, and separation of powers within state constitutions. Students need to be able to see how the principles and virtues found in the Declaration of Independence and the U.S. Constitution are of continuing relevance to the issues we face in the present and appreciate the use of deliberation in fostering these principles and their vital results.

The following required primary source documents (or excerpts thereof) should be examined in this strand:

- The Mayflower Compact
- Iroquois Confederation
- Articles of Confederation
- The Declaration of Independence

Guiding Questions to Consider:

- What does the natural rights tradition argue about the value of each human being? How do debates about natural rights shape current political and social issues?
- What is a civic virtue, what does it mean to be a virtuous citizen, and why does civic virtue matter?
- In what ways does the idea of the “common good” influence laws and policies today? How should we navigate potential tensions between the common good and individual rights?
- How does adherence to the rule of law uphold the civic virtues of justice and equality? How does it produce freedom and safety?
- How do the Mayflower Compact and Declaration of Independence show the ability of individuals to come together and, through courage, prudence, and cooperation, make an impact in their own lives, their communities, and the course of history?
- In what ways does the Declaration of Independence continue to shape American identity and political practices?

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UTAH CORE STATE STANDARDS for SOCIAL STUDIES

STANDARDS

Standard 1.1: Students will evaluate the meaning of a republic and how it differs from other forms of government, including monarchy, aristocracy, tyranny, oligarchy, and direct democracy.

Standard 1.2: Students will understand the classical republican tradition (civic virtue, participation, representation, republican government, common good, the rule of law) and the natural rights tradition (natural law, natural rights, consent of the governed, property rights, social compact). Students will apply core arguments to current issues and defend their claims.

Standard 1.3: Students will analyze how politically relevant principles from diverse colonial religious traditions influenced the American Founding and sparked debates about religious liberty, non-establishment of religion, religious pluralism, and toleration.

Standard 1.4: Students will analyze the Declaration of Independence and identify where the text refers to, or implies, the classical republican, natural rights, and colonial religious traditions. Students will also discuss the similarities and potential tensions between these traditions (such as between an emphasis on the common good and individual natural rights).

Standard 1.5: Students will identify various ways peoples have organized themselves politically prior to the 1787 Constitutional Convention, including the Iroquois Constitution, the British constitutional tradition, the early state constitutions, and the confederal principles and institutions of the Articles of Confederation.

Standard 1.6: Students will identify and analyze the **civic virtues** in the Declaration of Independence and where they are referenced, including decency and respect, truth and reason, justice, prudence, patience, courage, humility, magnanimity, faith, and honor.

Standard 1.7: Students will explore how ordinary citizens during the American independence movement applied the **civic skills** of working through local government, civic and religious associations, and the petition of representatives to effect political change.

Strand 2: STRUCTURE OF AMERICAN CONSTITUTIONAL GOVERNMENT

The U.S. Constitution embeds power in a federal system — that is, a compound constitutional republic where power is distributed by the people among national, state, and local governments as well as American Indian tribal governments established through treaties with the United States. The U.S. Constitution distributes authority between the legislative, executive, and judicial branches. This framework, wherein complete power resides in no single branch or level of government and in which those branches check and balance each other, is a key feature of the U.S. Constitution.

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other, was seen by the Framers as essential to good government. Developments and controversies involving federal structures and powers have, over time, clarified the responsibilities of each department or level of government.

The following required primary source documents (or excerpts thereof) should be examined in this strand:

- The U.S. Constitution
- Selected passages from the Federalist and Antifederalist papers, including
 - *Federalist* No. 1
 - *Federalist* No. 10, Brutus 1
 - *Federalist* Nos. 39, 45
 - *Federalist* No. 51
 - *Federalist* Nos. 57, 62
 - *Federalist* Nos. 68, 70
 - *Federalist* No. 78, Brutus 15
- Washington's Farewell Address
- Lincoln's critique of the Dred Scott decision

Guiding Questions to Consider:

- What forms of government protect life, liberty, and the pursuit of happiness? How?
- What are the strengths and weaknesses of a small republic versus a large republic?
- How did issues such as representation, executive power, and slavery shape the final Constitution?
- What were the core arguments for and against ratifying the U.S. Constitution? Which, if any of these questions and arguments are still prevalent in the United States today?
- What is federalism, and how did the Constitution create a balance between state and federal authority? How is *e pluribus unum* related to the concept of federalism? What are current events or issues that illustrate the relationship between national and state governments?
- In Federalist No. 51, Madison argues that a constitution "must first enable the government to control the governed; and in the next place oblige it to control itself." What does it mean for the government to "control itself" and why is that important? How can one keep governments from becoming tyrannical?
- What is the separation of powers and why did the Framers of the U.S. Constitution think it essential for good government? What are some examples of *checks and balances* and the separation of powers at work in current events and issues?

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- Are there circumstances in which the government might get better results when it is slow and deliberate? Are there circumstances when quick immediate and decisive action might be better?
- Is the will of the majority the only criterion of a good law? How are the rights of the minority protected against the will of the majority in a constitutional republic?
- What are the benefits and dangers of giving the executive power to a single person? How have presidential powers changed over time?
- Does the U.S. Constitution make one branch of government stronger than the others? Which is the least dangerous branch to liberty and which is the most?
- What impact does the role of the Supreme Court have on the powers of the executive and legislative branches?

STANDARDS

Standard 2.1: Students will analyze the processes and principal debates at the Constitutional Convention, including the insufficiencies of the Articles of Confederation, problems of representation (the Virginia and New Jersey plans), executive power and election, state versus federal authority, and the question of slavery.

Standard 2.2: Students will explain how the principles of separation of powers and checks and balances are implemented in the overall structure of the U.S. Constitution, by examining the U.S. Constitution and *Federalist* No. 51.

Standard 2.3: Through the study of Article I and *Federalist* Nos. 57 and 62, students will examine the distinct design and character of the House and Senate, the enumerated powers of Congress, the processes for how budgets and other bills become law, the appointment and impeachment of government officials, and the development of how political parties and committees shape Congress.

Standard 2.4: Through the study of Article II, *Federalist* Nos. 68 and 70, and the 12th, 20th, 22nd, and 25th Amendments, students will analyze the design and character of the Executive Branch, the electoral college, how the president's enumerated powers both empower and limit the presidency, and other major developments and controversies involving those powers, such as veto, appointment, commander-in-chief, executive bureaucracy, foreign policy, and executive orders and agreements.

Standard 2.5: Students will determine how the text of Article III and the Supremacy Clause of Article VI structure the federal court system, secure judicial independence, and empower the judiciary to interpret the Constitution, drawing on the arguments about the judiciary in *Federalist* No. 78 and Brutus 15.

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Standard 2.6: Students will assess major developments (including the creation and elimination of courts, judicial review, majority and minority opinions) and controversies involving federal judicial structures and the role of the judiciary in interpreting and applying the Constitution and laws through a study of several landmark supreme court decisions. This examination will also include a discussion of Lincoln’s critique of the *Dred Scott* decision.

Standard 2.7: Students will explain the core arguments of the debates over ratification of the U.S. Constitution, including the proper extent of a republic’s power through the study of *Federalist* Nos. 1 and 10, Brutus 1, and the need for a Bill of Rights.

Standard 2.8: Students will examine the principles and practice of federalism through a study of *Federalist* Nos. 39 and 45, and the Tenth Amendment.

Standard 2.9: Students will study and reflect upon the **civic skills and virtues** displayed in Washington’s “Farewell Address,” including those required for Constitutional fidelity and leadership, civic friendship and unity, the peaceful transfer of power, and citizenship.

Strand 3: DEVELOPMENT OF THE AMERICAN CONSTITUTION

Natural rights and civil liberties are codified in the Declaration of Independence and the U.S. Constitution. Those rights and liberties have been interpreted and extended over time to groups not originally included. With those rights and liberties come civic responsibilities. Students must understand the importance of natural rights and civil liberties for themselves, their families, and others. Students should be able to defend their own rights and the rights of others, understanding that the U.S. Constitution and its amendments help protect individuals who may not share their views.

The following required primary source documents (or excerpts thereof) should be examined in this strand:

- Selected passages from the Federalist and Antifederalist papers, including *Federalist* No. 84 and Brutus 2.
- The Bill of Rights (Amendments 1 – 10 in the U.S. Constitution)
- Speeches of Abraham Lincoln
- Speeches of Frederick Douglass
- Seneca Falls Declaration of Sentiments
- Lincoln-Douglas Debates

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UTAH CORE STATE STANDARDS for SOCIAL STUDIES

- Civil War and Reconstruction Amendments (13, 14, 15)
- Letter from Birmingham Jail

Guiding Questions to Consider:

- What are the natural rights and civil liberties articulated in the Declaration of Independence and in the U.S. Constitution? How have the rights and liberties in the Constitution been interpreted and extended over time? How have amendments changed who is included in “We the People”?
- What civic responsibilities and duties come with First Amendment rights?
- What limits exist on citizens’ exercise of the freedoms of religion, speech, press, and petition? How are these rights protected in practice?
- How do the Second through Ninth Amendments protect citizens' rights? Why are rights of the accused fundamental in a free society?
- How do the arguments made by Abraham Lincoln, Frederick Douglass, Elizabeth Cady Stanton, Martin Luther King, Jr. ,and others draw or expand upon the original natural rights tradition?
- After advances, such as the Reconstruction Amendments, why was the Civil Rights Movement still needed?
- How did civil rights legislation in the 20th century further implement the purpose of the 13th, 14th, 15th, and 19th Amendments?

STANDARDS

Standard 3.1: Students will understand the text of Article V of the Constitution, including the roles of Congress, state legislatures, state conventions, and the people in enacting constitutional change.

Standard 3.2: Students will identify and evaluate arguments for and against a written bill of rights through an examination of *Federalist* No. 84 and Brutus 2.

Standard 3.3: Students will examine the text, principles, and interpretation of the First Amendment’s protection of the freedoms of religion, speech, press, assembly, and petition, and discuss the relationship between rights and responsibilities of citizens.

Standard 3.4: Students will examine the text, principles, and interpretation of the Second through Ninth Amendments, as well as Habeas Corpus in Article I, Section 9.

Standard 3.5: Students will articulate differing views of the principles in the Declaration of Independence, the U.S. Constitution, and issues of natural law and natural rights, through a

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study of the Lincoln-Douglas “Ottawa Debate” and Frederick Douglass’ speeches “What to the Slave Is the Fourth of July?” and “The American Constitution and the Slave: An Address Delivered in Glasgow, Scotland.”

Standard 3.6: Students will evaluate the history, text, principles, and enforcement provisions of the Civil War and Reconstruction Amendments (13th, 14th, and 15th), as well as initial attempts to enforce them; additionally, students will evaluate the eventual enforcement of these amendments during the Civil Rights movement of the 20th century, civil rights legislation, and related Supreme Court decisions.

Standard 3.7: Students will examine the clauses (privileges or immunities, due process, equal protection, citizenship) of the 14th Amendment, including the incorporation of the Bill of Rights, the establishment of national citizenship, and the application of naturalization policies over time.

Standard 3.8: Students will analyze suffrage movements in the United States using the “Declaration of Sentiments” and the 14th, 15th, 19th, 24th and 26th Amendments as well as the ongoing debates over voting rights. Students will investigate Utah women’s suffrage through the Utah Constitution, as it relates to the national effort for women’s right to vote.

Standard 3.9: Students will determine the **civic skills and virtues** required for constitutional fidelity and civic friendship in times of political change and social division, through a study of Lincoln’s “Gettysburg Address” and “Second Inaugural Address;” Fredrick Douglass’ “Oration in Memory of Abraham Lincoln,” and Martin Luther King’s “Letter from Birmingham Jail,” including the **civic skills** of petition and persuasion, and the **civic virtues** of prudence, justice, courage, humility, duty, moderation, and civic charity.

Strand 4: PRACTICING CONSTITUTIONAL CITIZENSHIP

Our nation's future rests on the ability and willingness of every generation to fulfill their civic responsibilities. Participants in the American experiment practice self-government and nurture civic knowledge, skills, dispositions and virtues. They also engage at the federal, state, and local levels, using a range of strategies and methods to protect rights and seek the common good. Civic leadership and participation are available through political office and affiliation; non-governmental and civic organizations; religious groups, clubs, local organizations, schools, and more.

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The following required primary source documents (or excerpts thereof) should be examined in this strand:

- The Utah State Constitution
- UT Legislature website (<https://le.utah.gov/>)
- The U.S. Constitution

Guiding Questions to Consider:

- What is the relationship between a successful, functioning republic and a civically responsible and virtuous population? What civic skills and virtues are needed for both effective self-government and for limited, responsible governance by leaders and institutions?
- What does it mean to be an active and informed voter? How can citizens participate in the political process?
- How do community and civic groups contribute to a healthy republic? How does participation in civil society — including civic organizations, neighborhood associations, faith communities, schools, etc. — prepare citizens for civic and political life and strengthen communities?
- What does it mean to be an American? What are key elements of American political culture? How do the rights and responsibilities in our founding documents influence our political culture and identity today, including in Utah?
- Among all our differences and diversity, in what ways do the Declaration of Independence and our Constitution unite us as Americans?
- How can the ideas and principles of the Utah Constitution connect us as Utahns?
- What similarities and differences exist between the structure of government and institutions contained in the Utah Constitution and the U.S. Constitution?
- What similarities and differences exist between the U.S. Bill of Rights and the Utah Constitution?

STANDARDS

Standard 4.1: Students will identify elements of the Utah Constitution, including the state government that it created, the rights and principles it protected, and examine the process through which state and local laws are created, enforced, and interpreted.

Standard 4.2: Students will examine the practice of self-government at the state and local levels, including town, county, municipality, and tribal government decisions on budgeting, taxation, debt, and other government responsibilities.

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Standard 4.3: Students will understand the qualifications, roles, and oaths of office of local elected officers such as mayors, council members, school board members, auditors, treasurers, clerks, sheriffs, county commissioners, district or county attorneys, and tribal leaders.

Standard 4.4: Students will investigate the election process, including party platforms, caucuses, conventions, primaries, districting, funding, and campaigns while also understanding how individual citizens may participate.

Standard 4.5: Students will describe the influence of families, community groups, religious and educational organizations, and other civic associations in developing the social capital, civic skills, and civic virtues necessary to perpetuate constitutional self-government and the pursuit of happiness.

Standard 4.6: Students will analyze how the media informs citizens and influences public opinion. Students will also demonstrate the civic responsibility and **skills** needed to critically evaluate media sources for accuracy, credibility, bias, evidence, and logical reasoning.

Standard 4.7: Students will practice the **civic skills** of everyday citizenship by identifying a local problem, considering the best resources, stakeholders, and civic or political organizations (such as businesses, city councils, chambers of commerce, community and religious organizations, etc.) for addressing it; and proposing possible solutions including which level of government is authorized and best equipped to handle different current issues and defend their rationale.

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Rule/Statute: [Board Policy 3002](#)

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Public Comment Analysis

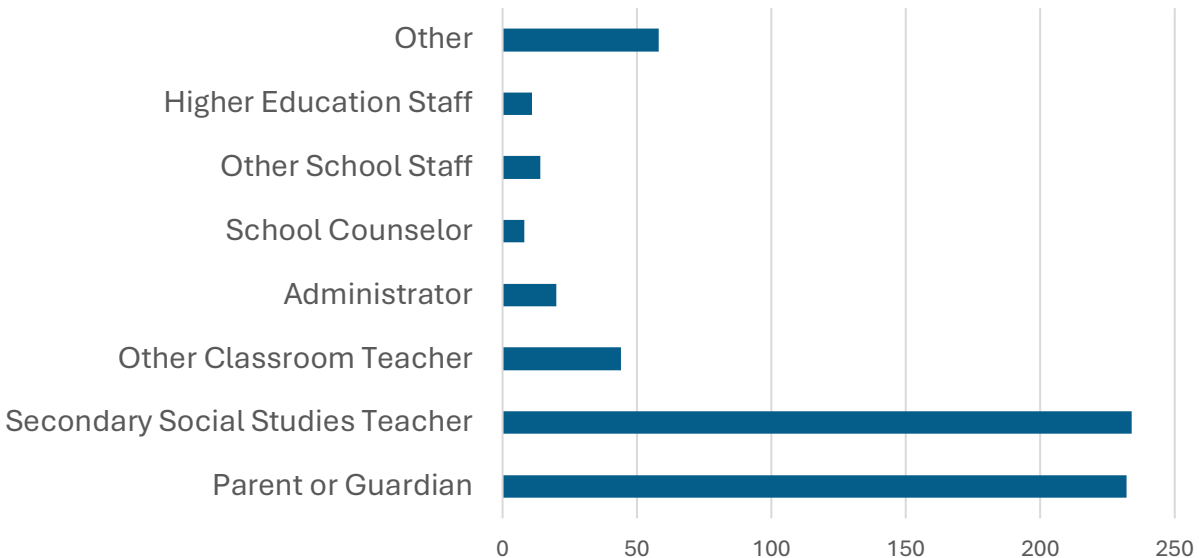
Demographic Information

There were 553 survey responses, 27 of which were identified as duplicates and removed. 526 unique users completed the survey.

Respondent Stakeholder Groups

Respondents were most commonly secondary social studies teachers and parents. Respondents could identify as belonging to more than one stakeholder group.

Respondent Stakeholder Groups



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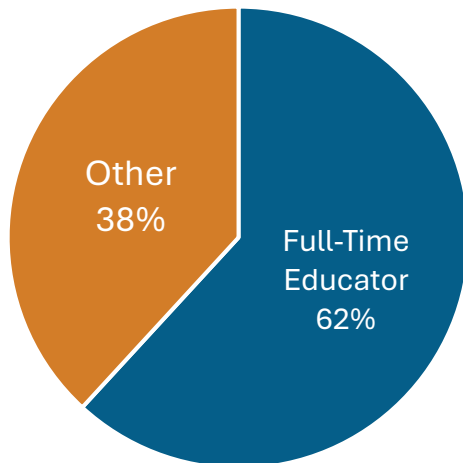
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Respondents reside in 20 of Utah's 29 counties.

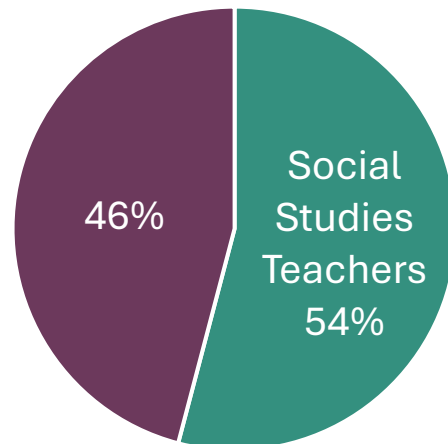


Full-time educators currently employed in an LEA made up 62% of respondents. More than half (54%) of respondents have taught secondary social studies in Utah.

Full-Time Employed Educator Respondents



Secondary Social Studies Teacher Respondents



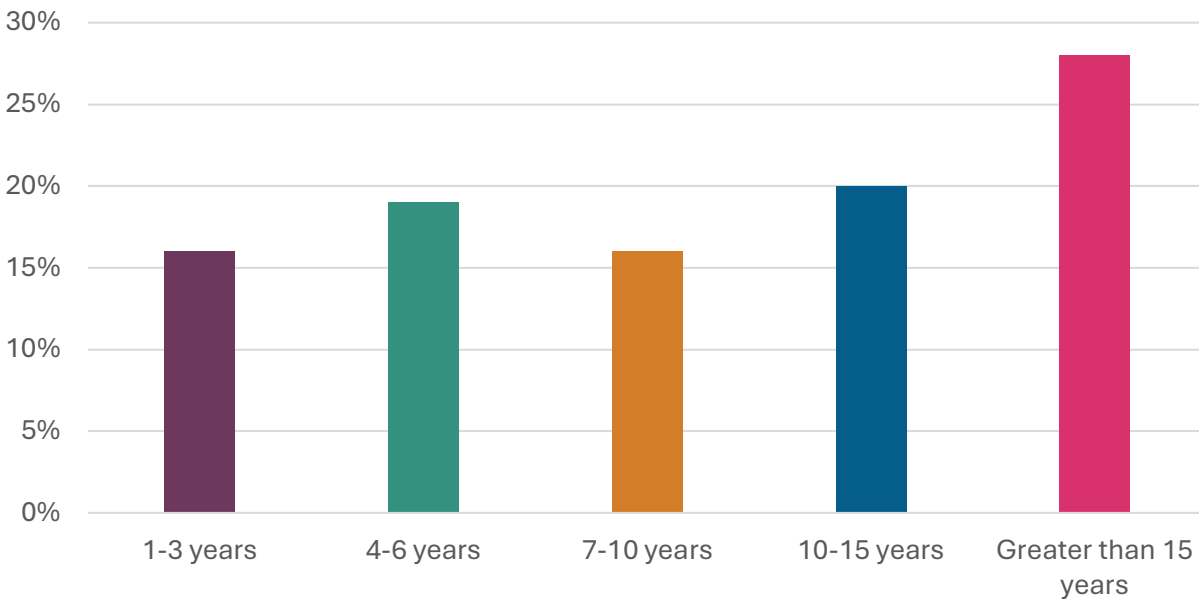
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Of those that have taught, nearly half (48%) have 10 or more years experience. The largest group of respondents (28%) had taught more than 15 years.

Years of Utah Secondary Social Studies Teaching Experience

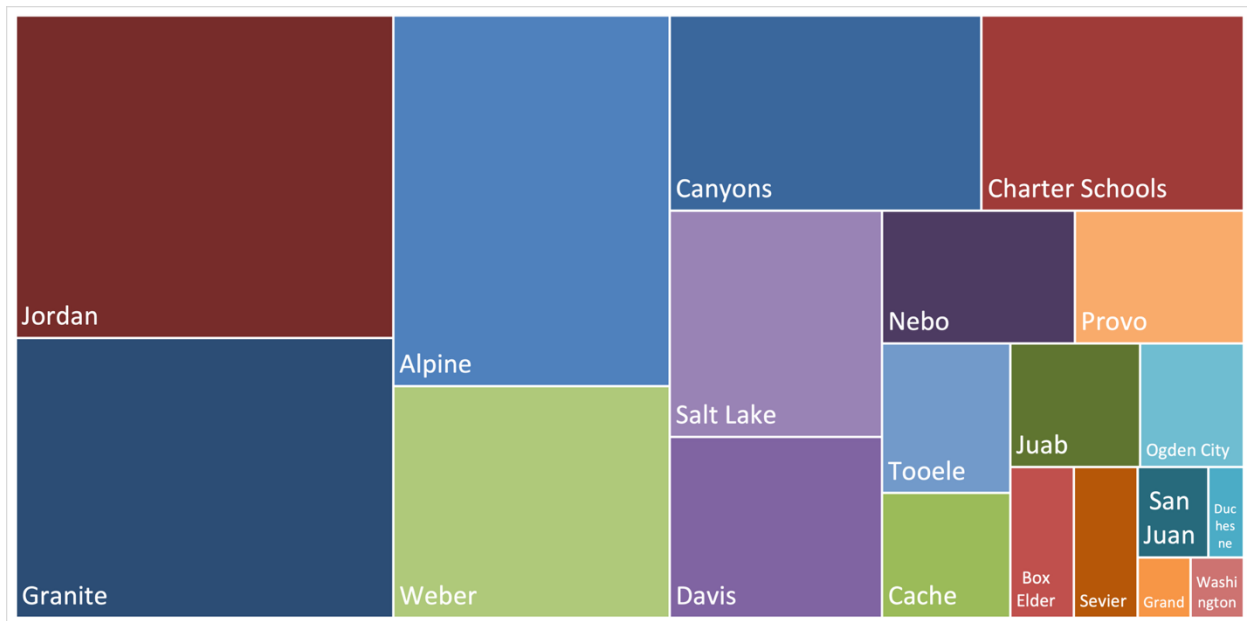


Respondents employed in LEAs came from 32 different LEAs including 19 school districts and 13 charter schools. LEAs with the most respondents were:

1. Jordan School District
2. Granite School District
3. Alpine School District
4. Weber School District
5. Canyons School District

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Public Comment Themes

When analyzing repeated themes and phrases across all commenters, several other notable topics emerged frequently:

AP Government / High School Level (59 and 62 mentions, respectively)

A large number of commenters continually compared the proposed standards to an "AP Government" course, frequently questioning if the expectations were suitable for a general "high school" audience versus an advanced placement track.

- **Course Difficulty: 10 commenters** explicitly indicated that the course was too difficult. They described the standards using terms such as "too hard," "too advanced," "overwhelming," "beyond high school," "college level," or equivalent to a "university syllabus."
- **Number of Standards: 23 commenters** stated that the number of standards should be reduced. They expressed this by stating there were "too many standards," "too much to cover," or by suggesting the committee should "cut down," "condense," or require "fewer standards."

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The "Common Good" (51 mentions)

Many commenters focused heavily on the phrase "common good," debating its definition, inclusion, or how it is balanced against individual rights.

Direct Democracy (46 mentions)

The concept of direct democracy was frequently debated in the feedback, often in contrast to a constitutional republic.

Civic Virtues (43 mentions)

There was significant discussion around "civic virtues," with commenters debating the appropriateness or method of teaching personal values and virtues in a government class.

The Federalist Papers & Primary Sources (39 and 36 mentions, respectively)

Commenters frequently brought up the required readings. Many praised the use of primary sources (like the Declaration of Independence, which was mentioned 36 times), while others expressed concern that reading the Federalist Papers in their original text would be too dense or time-consuming for the average student.

The Supreme Court / Civil Rights (32 and 48 mentions)

A notable chunk of comments pertained to how the courts, civil rights, and landmark Supreme Court decisions are represented (or underrepresented) in the curriculum.

The writing committee was provided access to all comments; however, they were only asked to provide written response to actionable comments. Examples of nonactionable comments are things such as "I disagree" or "I love this" which provide nothing concrete to respond to.

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PUBLIC COMMENT RESPONSES

Comments are broken into sections. Only actionable comments were addressed.

- [Course Description](#)
- [Principles of Civic Preparation](#)
- [Strand 1: American Founding Principles](#)
- [Strand 2: Constitutional Government and Union](#)
- [Strand 3: Structure of American Government](#)
- [Strand 4: Development of the American Constitution](#)
- [Strand 5: Practicing Constitutional Citizenship](#)
- [Semester Split Comments](#)
- [Additional Comments](#)

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Course Description

#1 Course Description

Comment: *"Additionally, students recognize and practice the civic skills needed to courageously express opinions, working with others to solve problems, navigating commitment to principles while recognizing the place of compromise, weigh evidence, think critically, make informed decisions, and participate in government processes." Should be revised for parallel structure.*

RESPONSE: Thank you for this specific wording suggestion. The writing team will consider the changes.

#2 Course Description

Comment: *Several important topics related to federalism are either not explicitly addressed or only lightly touched on in the standards, including the Necessary and Proper Clause, Commerce Clause, fiscal federalism, and key Supreme Court federalism doctrines.*

RESPONSE: This will be noted for instructional resource and instructional resource document development.

#3 Course Description

Comment: *47 Standards is quite extensive, even for a year-long course. In addition, some of them need to be broken down and/or listed as sub-standards.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2—the expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. The primary source readings are intended to be studied as excerpts, not complete texts; the specific citations

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guide teachers to the most relevant passages. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#4 Course Description

Comment: *Finally, some of the curriculum we cover now is missing, like fiscal policy and foreign relations.*

EDITED RESPONSE: Fiscal policy is addressed in Strand 5 (Standard 5.4). Foreign policy is not a primary focus of this course, which is grounded in constitutional government and citizenship as mandated by Utah Code 53E-4-205.2. Both topics may be addressed through curricular decisions at the local level and will be noted for instructional resource document development.

#5 Course Description

Comment: *"acquaint" is a weaker verb; "familiarize" is the depth we are looking for.*

RESPONSE: The writing team will look at possible changes.

#6 Course Description

Comment: *Development of the American Constitution should be the first strand to solidify students' understanding before moving to founding principles.*

RESPONSE: The strand sequence follows a deliberate pedagogical progression: foundational principles (Strand 1), constitutional structure (Strands 2-3), the development of constitutional rights (Strand 4), and applied citizenship (Strand 5). HB 381 requires Strands 1-3 to be completed before Strands 4-5. The writing team is confident this progression builds student understanding effectively. We appreciate this perspective.

#7 Course Description

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Comment: *Feels really "holier than thou" with some wording; this course needs critical thinking, not just patriotic cheerleading.*

EDITED RESPONSE: The writing team has grounded the language of these standards in the historical record of the American founding and the primary sources required by Utah Code 53E-4-205.2. Where language has been perceived as reflecting a particular viewpoint, we have reviewed it for clarity, precision, and balance. The course is designed to develop students' capacity for critical thinking and evidence-based civic argument—not to advocate for particular political conclusions. The guiding questions throughout each strand are intentionally open-ended to support genuine civic inquiry. We have reviewed specific language flagged in public comments and made revisions where appropriate.

#8 Course Description

Comment: *Why do we keep using the word "courageously"? Seems very odd.*

RESPONSE: The term "courageously" reflects the civic virtue tradition central to this course. The Founders regularly used this language because they understood that civic participation—particularly expressing principled views in public—requires genuine courage. This term also appears in the language of Utah Code 53E-4-205.2. The writing team has reviewed each usage to ensure the word is purposeful, and we will consider whether contextual framing can address this concern where it arises.

#9 Course Description

Comment: *Use the word "civic dialogue" in describing things. That's an important skill to have.*

RESPONSE: Thank you for this suggestion. "Civic dialogue" is an important concept for this course and will be noted for review. This language may be incorporated where appropriate and will also inform instructional resource document development.

#10 Course Description

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Comment: *Get rid of a lot of the political theory. I would love to see more of things that matter to people like voting and elections and political parties.*

RESPONSE: Political parties, elections, and voter participation are addressed in Strand 5, which focuses on Utah government and civic engagement. The political theory in Strands 1-3 establishes the constitutional foundations that make civic participation meaningful. Standards describe core knowledge and skills; teachers retain significant flexibility to connect foundational content to contemporary civic applications.

#11 Course Description

Comment: *I am concerned about the lack of a foreign policy strand. This seems important in an increasingly globalized world.*

RESPONSE: This course is specifically focused on American constitutional government and citizenship as mandated by Utah Code 53E-4-205.2. Foreign policy is not a primary focus, though teachers may address it through curricular decisions.

#12 Course Description

Comment: *I am concerned that there is not something about current issues and keeping up on news in the first three strands.*

RESPONSE: Current events and news literacy are not excluded from the first three strands. The guiding questions throughout each strand explicitly invite teachers to connect foundational content to current issues and events. Integrating current events is a curricular decision teachers make throughout the course.

#13 Course Description

Comment: *I appreciate the goal of preparing students for citizenship, but I'm concerned the course description feels like it is promoting a specific set of beliefs rather than encouraging open inquiry.*

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RESPONSE: The writing team has grounded the language of these standards in the historical record of the American founding and the primary sources required by Utah Code 53E-4-205.2. Where language has been perceived as reflecting a particular viewpoint, we have reviewed it for clarity, precision, and balance. The course is designed to develop students' capacity for critical thinking and evidence-based civic argument—not to advocate for particular political conclusions. The guiding questions throughout each strand are intentionally open-ended to support genuine civic inquiry.

#14 Course Description

Comment: *I don't feel that the term "virtues" needs to be included in this course description. Also, the phrase about "attachment to the Constitution" seems a bit odd and more focused on emotional attachment than intellectual understanding.*

RESPONSE: The civic virtues language is drawn directly from the Founders' own writings in the required primary sources. The term "attachment to the Constitution" reflects the founding conviction that a republic requires citizens who care about and understand the constitutional order—a theme the Founders expressed repeatedly. The civic virtues listed in the Principles of Civic Preparation—integrity, courage, justice, prudence, moderation, and civic charity—are drawn directly from the Founders' own language in the primary sources required by this course, including the Declaration of Independence and the Federalist Papers. These virtues are presented as a framework for understanding why the Founders believed self-governance requires citizens of good civic character—not as personal moral requirements to be assessed individually. They appear in the Principles section, which is an introductory framework for educators, not a standalone strand. Students demonstrate understanding by identifying and analyzing these concepts in primary source texts. Instructional resource documents will clarify assessment expectations and how teachers can engage with these concepts as historical and political ideas.

#15 Course Description

Comment: *I feel like American exceptionalism cannot be the foundation for this course. It should be a focus on the purpose and function of our government.*

RESPONSE: The course examines the American founding on its own terms, including its tensions and contradictions. Students examine primary sources including Frederick

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Douglass's "What to the Slave Is the Fourth of July?" and the Seneca Falls Declaration of Sentiments—texts that directly challenge students to assess the gap between American ideals and historical realities. The course is not designed to promote uncritical patriotism but to develop students' capacity for evidence-based civic understanding.

#16 Course Description

Comment: *I strongly recommend that excerpts from John Locke (Second Treatise on Government) be a required reading.*

RESPONSE: Standards describe what students should know and be able to do—they do not prescribe curriculum, specific instructional activities, or materials beyond what is required by Utah Code 53E-4-205.2. Suggestions for additional readings, specific activities, service projects, or supplemental materials will be noted and may be incorporated into instructional resource and resource documents developed to support this course. Curricular decisions, including the selection of specific texts and classroom activities, remain with local education agencies. Enlightenment political philosophy, including Locke's direct influence on the Founders, is foundational context for the natural rights tradition studied in Standard 1.3. A supplemental suggested reading list may be developed in instructional resource documents.

#17 Course Description

Comment: *I think covering the Federalist papers is WAY too in-depth for the curriculum. Why are we not just following what the AP Gov Curriculum guide suggests?*

RESPONSE: Several primary source documents are required by Utah Code 53E-4-205.2, and are therefore non-negotiable. The specific Federalist essays cited are intended to direct teachers to the most relevant passages for each standard—not to require complete readings. Excerpts appropriate to the course level are expected throughout, and teachers have discretion in selecting specific passages. The inclusion of original texts reflects the course's goal of connecting students directly to the founding documents rather than relying solely on secondary accounts. Instructional resource documents will include suggested excerpts and scaffolding materials. This course is not designed around the AP Government curriculum, which has different objectives.

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#18 Course Description

Comment: *I think having required primary source documents does not respect the teacher's autonomy enough. They should be suggested, not required.*

RESPONSE: Several primary source documents are required by Utah Code 53E-4-205.2 and are therefore non-negotiable. The writing team has no authority to make these optional. Within the scope of required documents, teachers retain significant latitude in how they introduce and scaffold materials, select specific excerpts, and sequence instruction.

#19 Course Description

Comment: *I think the use of the word "courageously" when talking about expressing opinions is out of place. In an academic situation the focus should be on rational analysis, not a subjective virtue. Courage was not required to express opinions; critical thinking is.*

RESPONSE: The term "courageously" is used because this course teaches that civic participation—particularly expressing principled positions in public—can require genuine social courage, a conviction the Founders expressed repeatedly. Critical thinking and courageous civic expression are not mutually exclusive in this course's framework.

#20 Course Description

Comment: *I think there should be discussion and information about Utah's party caucus system and how candidates can be elected there.*

RESPONSE: Utah's caucus system and other forms of civic participation are addressed in Strand 5, which focuses on Utah government and civic engagement. This will also be noted for instructional resource and instructional resource documents to ensure students have specific knowledge about Utah's unique political processes.

#21 Course Description

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Comment: *I think we would cross a fine line expecting teachers to address "virtues"—this becomes very personal.*

RESPONSE: The civic virtues listed in the Principles of Civic Preparation—integrity, courage, justice, prudence, moderation, and civic charity—are drawn directly from the Founders' own language in the primary sources required by this course, including the Declaration of Independence and the Federalist Papers. These virtues are presented as a framework for understanding why the Founders believed self-governance requires citizens of good civic character—not as personal moral requirements to be assessed individually. They appear in the Principles section, which is an introductory framework for educators, not a standalone strand. Students demonstrate understanding by identifying and analyzing these concepts in primary source texts.

#22 Course Description

Comment: *I would keep the text of the original course: "One of the fundamental purposes for public schools is the preparation of young people for participation in America's democratic republic."*

RESPONSE: The language was developed to reflect the course's expanded scope and the specific requirements of Utah Code 53E-4-205.2. The term "constitutional republic" is used consistently to reflect the course's emphasis on the constitutional structure of American government.

#23 Course Description

Comment: *I would like to see the caucus system taught and promoted in the course.*

RESPONSE: Utah's caucus system is addressed in Strand 5, which focuses on Utah government and civic engagement. Standards describe what students should know and be able to do; how teachers develop specific civic participation skills—including engagement with Utah's caucus system.

#24 Course Description

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Comment: *I would recommend creating a new Strand 1 that would include all of the civic virtues and civic skills as well as describing the reading and writing skills utilized in analyzing primary sources.*

RESPONSE: The Principles of Civic Preparation section, which precedes the strand standards, addresses civic skills and virtues as foundational context for the entire course. Primary source analysis skills are incorporated throughout the strands, particularly in Standard 1.7. The writing team considered various organizational approaches and determined this placement best frames all subsequent content without creating a separate strand that could redirect time from Utah Code 53E-4-205.2 required constitutional content.

#25 Course Description

Comment: *In second paragraph I would also add that students are learning their responsibilities as citizens.*

RESPONSE: The relationship between rights and responsibilities is explicitly addressed throughout the standards, particularly in Standard 4.3 and throughout Strand 5.

#26 Course Description

Comment: *In terms of a "new class," the setup of this course sounds extremely similar to what is already taught in civics. What is essentially different?*

RESPONSE: This course is not a repetition of the current U.S. Government course—that course will be retired, and this new course will replace it. Utah Code 53E-4-205.2 mandates a new, full-year course with significantly expanded scope, specific required primary sources, and a deeper focus on constitutional government. The expanded two-semester structure, depth of primary source engagement, and civic development framework distinguish it substantially from prior offerings.

#27 Course Description

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Comment: *In the Communication skills, I think there needs to be included civic dialogue and using evidence from research to back up their argument.*

RESPONSE: Thank you for this substantive suggestion. Civic dialogue and evidence-based argument are foundational skills throughout this course. We will review the Communication skills language in the Principles of Civic Preparation to consider incorporating these terms where they strengthen clarity and completeness.

#28 Course Description

Comment: *Is this the course that acknowledges the role of religion in the founding of our government?*

RESPONSE: Yes. Standard 1.4 explicitly requires students to analyze how politically relevant principles from colonial religious traditions—including Puritan covenant theology and self-governance, Anglican loyalty and civil religion, Quaker religious tolerance and equality, and the democratizing effects of the Great Awakening—influenced the American Founding and sparked debates about religious liberty, non-establishment of religion, and religious pluralism.

#29 Course Description

Comment: *Maybe rather than "upholding" say "participating in our constitutional republic."*

RESPONSE: Thank you for this specific wording suggestion. The writing team will review this phrase in context and consider whether "participating in" better captures the active civic role the course is designed to develop.

#30 Course Description

Comment: *More precise and targeted instruction for Civic Participation like voting, serving on juries, contacting elected officials, etc.*

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RESPONSE: Civic participation—including voting, jury service, petitioning government, and civic engagement—is addressed in Strand 5. Specific activities are curricular decisions teachers make within these standards. Standards describe what students should know and be able to do—they do not prescribe curriculum, specific instructional activities, or materials beyond what is required by Utah Code 53E-4-205.2.

#31 Course Description

Comment: *My concern is that the only individuals mentioned in this course description are men. Even the footnote about women's suffrage relates an article by Martin Luther King Jr. and makes no mention of any women.*

RESPONSE: This is a meaningful observation. Women's voices and experiences are represented in the required primary sources for this course, including the Seneca Falls Declaration of Sentiments (Strand 4) and Utah women's suffrage materials (Standard 4.8). We will review the Course Description language to more clearly signal the course's inclusion of women's contributions to American constitutional history.

#32 Course Description

Comment: *My concerns is the order of the Units. I think switching 4 and 3 makes more sense in a chronological standpoint.*

EDITED RESPONSE: The strand sequence follows a deliberate pedagogical progression: foundational principles, constitutional structure, constitutional development, and applied citizenship. Utah Code 53E-4-205.2 requires Strands 1-3 before Strands 4-5. The writing team is confident this progression effectively builds student understanding from principle to structure to application.

#33 Course Description

Comment: *My primary concern is that the language of the course description is unclear on the depth to which the required primary readings need to be explored.*

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RESPONSE: This is a valid and important concern. Primary Source excerpts can be chosen that are appropriate to the level of the course, not as complete texts. Instructional resource documents will include suggested excerpts for each required source.

#34 Course Description

Comment: *Neutrality. The phrases "upholding our constitutional republic," "virtues necessary," and "commitment to American ideals" reflect strong patriotic language.*

RESPONSE: The writing team has grounded the language of these standards in the historical record of the American founding and the primary sources required by Utah Code 53E-4-205.2. The course is designed to develop students' capacity for critical thinking and evidence-based civic argument—not to advocate for particular political conclusions. The guiding questions throughout each strand are intentionally open-ended to support genuine civic inquiry.

#35 Course Description

Comment: *Standards seem quite dense and a large portion is a repeat of material from US History 1 and 2.*

RESPONSE: This course is not a repetition of prior coursework—it is a new, full-year course replacing the current Government course as mandated by Utah Code 53E-4-205.2. While some foundational content may be familiar to students who have taken US History, the depth of constitutional analysis, primary source engagement, and civic development represents a substantial expansion. The standards build on prior knowledge while requiring significantly deeper engagement.

#36 Course Description

Comment: *Strand 1 is littered with arbitrary and debatable standards. It reads more like a social and emotional learning course than one on government.*

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RESPONSE: The civic skills and virtues in the Principles of Civic Preparation are not social-emotional learning standards—they are drawn from the classical republican and natural rights traditions studied in the required primary sources. The Founders understood these civic dispositions as essential to self-governance in a constitutional republic. Students are assessed on their ability to identify and analyze these concepts in primary source documents, not on their personal character. The civic virtues listed in the Principles of Civic Preparation—integrity, courage, justice, prudence, moderation, and civic charity—are drawn directly from the Founders' own language in the primary sources required by this course, including the Declaration of Independence and the Federalist Papers. These virtues are presented as a framework for understanding why the Founders believed self-governance requires citizens of good civic character—not as personal moral requirements to be assessed individually. They appear in the Principles section, which is an introductory framework for educators, not a standalone strand. Students demonstrate understanding by identifying and analyzing these concepts in primary source texts.

#37 Course Description

Comment: *Take out the word "virtues" in the Course Description. The use of this word suggests morality and can be "interpreted" by teachers.*

RESPONSE: The civic virtues listed in the Principles of Civic Preparation—integrity, courage, justice, prudence, moderation, and civic charity—are drawn directly from the Founders' own language in the primary sources required by this course, including the Declaration of Independence and the Federalist Papers. These virtues are presented as a framework for understanding why the Founders believed self-governance requires citizens of good civic character—not as personal moral requirements to be assessed individually. They appear in the Principles section, which is an introductory framework for educators, not a standalone strand. Students demonstrate understanding by identifying and analyzing these concepts in primary source texts.

#38 Course Description

Comment: *The civic dispositions and virtues section includes items that often come up in the legislature as things they do not want taught in K-12. And how do you measure integrity, truthfulness, honor?*

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RESPONSE: The civic virtues listed in the Principles of Civic Preparation are not individually assessed performance standards. Students demonstrate understanding by identifying, analyzing, and explaining these concepts in the primary source documents required by the course—they are not assessed on whether they personally embody these virtues. Instructional resource documents will clarify assessment expectations to ensure teachers understand this distinction.

#39 Course Description

Comment: *The civic dispositions should include language about tolerance and accepting diversity.*

RESPONSE: The writing team considered a wide range of civic virtues and dispositions. "Civic charity"—which includes recognizing the worth of all human beings and seeking the well-being of all fellow citizens—and "justice"—which includes respecting the dignity, liberty, and rights of others—address many of the values raised by this comment.

#40 Course Description

Comment: *The deep constitutional emphasis of this course does more than "acquaint" students. Something like "making informed claims" would be more appropriate.*

RESPONSE: The writing team agrees that "acquaint" understates the depth of engagement this course expects. The writing team will consider the use of a stronger verb—such as "ground" or "engage"—that more accurately reflects the course's rigor and expectations

#41 Course Description

Comment: *The Enlightenment should be specifically mentioned. As a critical foundation of our government it deserves explicit mention.*

RESPONSE: Enlightenment political philosophy is the foundational intellectual context for the natural rights tradition studied in Standard 1.3

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#42 Course Description

Comment: *The inclusion of direct democracy alongside dictatorships and oligarchies as benefiting the leader is an inaccurate representation of direct democracy. It is a functional system on the small scale.*

RESPONSE: Standard 1.1 draws on the classical political taxonomy originating with Aristotle, which categorizes "pure" or direct democracy as the corrupted form of republican government—one that the Founders themselves discussed and rejected when designing the constitutional republic. This is a foundational distinction in the political philosophy the course examines. Students are taught to analyze and critically evaluate this framework, including its limitations and the context in which it was developed.

#43 Course Description

Comment: *The need for Civic Virtues needs to be in the course description. Civic virtue, the sacrifice of self in some way, is required for citizens and expected by the founders.*

RESPONSE: Thank you for affirming the importance of civic virtues in this course. The Principles of Civic Preparation section, which introduces all five strands, addresses civic virtues extensively as foundational to the entire course. They are also woven throughout the strand standards in the analysis of required primary source documents.

#44 Course Description

Comment: *The title of the course should not use the term "American," but "U.S."*

RESPONSE: The course title "American Constitutional Government and Citizenship" is established by Utah Code 53E-4-205.2 and is not within the writing team's authority to change.

#45 Course Description

Comment: *There needs to be a focus on current events, understanding media, and modern-day attacks against historically protected rights.*

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RESPONSE: Current events, media literacy, and contemporary applications of constitutional rights are addressed through the curricular flexibility teachers retain within each strand. Standards describe foundational knowledge and skills; teachers may integrate current events, media analysis, and contemporary examples throughout the course. Standards describe what students should know and be able to do—they do not prescribe curriculum, specific instructional activities, or materials beyond what is required by Utah Code 53E-4-205.2..

#46 Course Description

Comment: *There needs to be a greater emphasis on being an educated and involved voter, including participation in caucus meetings and meet-the-candidate gatherings.*

RESPONSE: Civic engagement and voter participation are addressed in Strand 5. Specific civic participation activities such as attending caucus meetings or candidate forums are curricular decisions made at the local education agency level. Standards describe what students should know and be able to do—they do not prescribe curriculum.

#47 Course Description

Comment: *This class feels like a Political Science theory class more than a high school introduction to constitutional government. The overview does not explain how students will see the constitution work in practice.*

RESPONSE: Strands 4 and 5 explicitly address the practical application of constitutional principles—the development of civil rights and liberties, Utah government, and active civic participation. The foundational theory in Strands 1-3 is necessary context for understanding how and why the Constitution works in practice. The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2—the expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation.

#48 Course Description

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Comment: *This class is not politically neutral. The course title and description are aligned with a specific school of conservative thought.*

RESPONSE: The writing team has grounded the language of these standards in the historical record of the American founding and the primary sources required by Utah Code 53E-4-205.2. Where language has been perceived as reflecting a particular viewpoint, we have reviewed it for clarity, precision, and balance. The course is designed to develop students' capacity for critical thinking and evidence-based civic argument—not to advocate for particular political conclusions.

#49 Course Description

Comment: *This description is quite lengthy. Most descriptions for courses like this are one paragraph. It should be shortened for clarity.*

RESPONSE: The Principles of Civic Preparation section is intended as a substantive introduction for educators—it is not the student-facing course description. Its length reflects the depth of context needed to frame the course's approach to civic skills, virtues, and knowledge.

#50 Course Description

Comment: *This phrase is a bit odd: "students recognize and practice the civic skills needed to courageously express opinions." I think it should be "clearly express opinions"—the other sounds quite propaganda-ish.*

RESPONSE: "Courageously" is used here to reflect the Founders' understanding that civic expression requires the willingness to take principled stands even when unpopular.

#51 Course Description

Comment: *This program is ok, but: 1. Needs to be placed within context of American form of government being but one of many. 2. This line is a laughable attempt at indoctrination—direct democracy listed alongside dictatorships.*

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RESPONSE: Standard 1.1 examines multiple classical types of regimes—including monarchy, aristocracy, republic, tyranny, oligarchy, and direct democracy—providing comparative context for the American constitutional republic. The classification of direct democracy as a corrupted form of republican government draws on Aristotle's political taxonomy, which the Founders explicitly used in their own writings. Students are taught to examine and critically evaluate this framework as part of understanding why the Founders designed a constitutional republic.

#52 Course Description

Comment: 2. *This line struck me as either a very silly mistake or an attempt at indoctrination: "Students will examine the classical types of regimes...including those that work for the ruler's good, including tyranny, oligarchy, and direct democracy."*

RESPONSE: Standard 1.1 draws on the classical political taxonomy—originating with Aristotle and used by the American Founders in their own writings—which distinguishes between forms of government that rule for the common good and those that serve narrow interests. In this framework, direct democracy is the corrupted form of republican government, a distinction James Madison explicitly articulates in Federalist No. 10. Students are taught to analyze and critically evaluate this framework.

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Principles of Civic Preparation

The following responses address all **47 actionable comments** received for the Principles of Civic Preparation section.

#1 Principles of Civic Prep

Comment: *The statement "find solutions" should be "find constitutionally sound and lawful solutions to problems." A statement to balance the exercise of rights with laws is appropriate.*

RESPONSE: Thank you for this specific wording suggestion.

#2 Principles of Civic Prep

Comment: *There should be tolerance and diversity added to the list of civic virtues. One of the greatest strengths of the USA is its multiculturalism.*

RESPONSE: The writing team considered a wide range of civic virtues and dispositions. "Civic charity"—which includes recognizing the worth of all human beings—and "justice"—which includes respecting the dignity, liberty, and rights of others—address many of the values raised by this comment.

#3 Principles of Civic Prep

Comment: *Many of the civic skills listed are very outgoing, extroverted skills. As a more reserved person myself, and having taught reserved students, a lot of those tasks are unsettling. I would ask that multiple ways to engage civically are illustrated.*

RESPONSE: This is a valuable observation. The Principles of Civic Preparation explicitly frames the civic skills list as "include but are not limited to," making clear that it is not exhaustive and that teachers are not limited to these modes.

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#4 Principles of Civic Prep

Comment: *It may be worth mentioning the dangers of communism and the precepts of a Constitutional Republic that directly oppose such.*

RESPONSE: Standard 1.1 examines multiple types of regimes, including those that rule for the common good versus those that serve narrow interests—providing comparative context for the American constitutional republic. This will be noted for instructional resource document development, which may suggest how teachers can apply this comparative framework to more recent historical examples.

#5 Principles of Civic Prep

Comment: *"One of the fundamental purposes for public schools is the preparation of young people for citizenship..."—is it truly the purpose of public schools OR education in general?*

RESPONSE: The language "one of the fundamental purposes for public schools" is consistent with Utah State Board of Education standards language used across subject areas and reflects the context in which this course is designed. This course is developed for public schools; the sentence appropriately reflects that context.

#6 Principles of Civic Prep

Comment: *The focus on qualities of character, including all of the civic dispositions and virtues, is overemphasized. There are too many listed, and many cannot be measured in a classroom.*

RESPONSE: The civic virtues listed in the Principles of Civic Preparation—integrity, courage, justice, prudence, moderation, and civic charity—are drawn directly from the Founders' own language in the primary sources required by this course, including the Declaration of Independence and the Federalist Papers. These virtues are presented as a framework for understanding why the Founders believed self-governance requires citizens of good civic character—not as personal moral requirements to be assessed individually.

#7 Principles of Civic Prep

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Comment: *"What is good, just and right" is very debatable and in today's political climate it will be hard for teachers to know how to balance that line.*

RESPONSE: The definition of virtue as "a consistent habit of choosing what is good, just, and right" reflects the classical philosophical tradition foundational to the American founding. The course invites students to examine how the Founders defined and applied these terms—not to accept a single fixed definition as settled

#8 Principles of Civic Prep

Comment: *This curriculum needs to be placed within the context of the American form of government being but one of many forms of government that exist and thrive.*

RESPONSE: Standard 1.1 examines multiple classical types of regimes, including monarchy, aristocracy, republic, tyranny, oligarchy, and direct democracy—providing comparative context for the American constitutional republic. The course is focused on American constitutional government as mandated by HB 381, but this comparative framework is foundational to the course's opening strand.

#9 Principles of Civic Prep

Comment: *"Students will examine the classical types of regimes or forms of government...including those that work for the ruler's good, including tyranny, oligarchy, and direct democracy." This is either a mistake or an embarrassing attempt at indoctrination.*

RESPONSE: Standard 1.1 draws on the classical political taxonomy originating with Aristotle, which the American Founders explicitly used in their own writings—including Federalist No. 10. In this framework, direct democracy is categorized as the corrupted form of republican government. Students are taught to examine and critically evaluate this framework as part of understanding why the Founders designed a constitutional republic.

#10 Principles of Civic Prep

Comment: *"Willingness to Sacrifice" feels like indoctrination; it's not my responsibility to teach other people's children that they should be willing to sacrifice.*

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RESPONSE: "Willingness to Sacrifice" as a civic virtue refers specifically to civic sacrifice—contributing time, effort, and engagement to community and republic in service of the common good—as the Founders consistently described in the primary sources required by this course. It does not refer to personal, financial, or military sacrifice.

#11 Principles of Civic Prep

Comment: *The term "proper" is a subjective idea of what is appropriate. "Correctly deciding what is most just and useful for a particular situation" would be less subjective.*

RESPONSE: Thank you for this specific wording suggestion.

#12 Principles of Civic Prep

Comment: *This section feels too wordy and just needs to get to the point of what are principles of Civic Preparation and why are they important.*

PUBLIC RESPONSE: The Principles of Civic Preparation is intended as a substantive introduction for educators rather than a student-facing document. Its length reflects the depth of context needed to frame the course's foundational approach. We will review for opportunities to improve concision and directness.

#13 Principles of Civic Prep

Comment: *I appreciate the focus on civic preparation, but this section relies too heavily on subjective ideas like "virtue" rather than clear, measurable skills.*

RESPONSE: The civic virtues listed in the Principles of Civic Preparation—integrity, courage, justice, prudence, moderation, and civic charity—are drawn directly from the Founders' own language in the primary sources required by this course, including the Declaration of Independence and the Federalist Papers. These virtues are presented as a framework for understanding why the Founders believed self-governance requires citizens of good civic character—not as personal moral requirements to be assessed individually. They appear in the Principles section, which is an introductory framework for educators, not a standalone

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strand. Students demonstrate understanding by identifying and analyzing these concepts in primary source texts.

#14 Principles of Civic Prep

Comment: *It's a values transmission system disguised as a standards document—not education based on facts and measurable skills. It should be explicit, balanced, and measurable.*

RESPONSE: The standards describe specific knowledge and skills students should demonstrate: analyzing primary sources, evaluating arguments, constructing evidence-based claims, and participating in civil discourse. The civic virtues framework is presented as historical context drawn from the Founders' own language—not as values to be individually assessed or instilled. The writing team has grounded the language of these standards in the historical record of the American founding and the primary sources required by Utah Code 53E-4-205.2..

#15 Principles of Civic Prep

Comment: *There needs to be a greater emphasis on rights having responsibilities and how the two are connected.*

RESPONSE: The relationship between rights and responsibilities is an important and underscored theme throughout this course. Standard 4.3 explicitly addresses civic responsibilities that accompany First Amendment rights. Strand 5 addresses civic responsibilities throughout.

#16 Principles of Civic Prep

Comment: *The description of the coursework is extremely vague. Without more specificity of what is to be taught, it's difficult to give a valid opinion.*

RESPONSE: The Principles of Civic Preparation is an introductory section that frames the course's overarching approach. The specific knowledge and skills students are expected to demonstrate are detailed in the standards within each strand, which provide concrete

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learning expectations. The course's specificity is located in the standards themselves, not the introductory principles.

#17 Principles of Civic Prep

Comment: *Same thing, please fully teach and promote the caucus system in the course.*

RESPONSE: Utah's caucus system and other forms of civic participation are addressed in Strand 5, which focuses on Utah government and civic engagement. Standards describe what students should know and be able to do; how teachers develop specific civic participation skills—including knowledge of Utah's caucus system—is a curricular decision.

#18 Principles of Civic Prep

Comment: *The course description and Principles of Civic Participation lay out a really strong vision for civic education. However, I'd like to see better balance between foundational theory and contemporary application, and more explicit acknowledgment of the diversity of American voices.*

RESPONSE: Thank you for this substantive and affirming feedback. The writing team has reviewed the specific concerns raised about balance between foundational theory and contemporary application. Strand 5 is dedicated to applied citizenship, and the guiding questions throughout each strand explicitly connect foundational content to current issues. The required primary sources include diverse American voices—including Frederick Douglass, the Seneca Falls Declaration, and the Letter from Birmingham Jail—representing the expansion of constitutional rights

#19 Principles of Civic Prep

Comment: *I am concerned that there is not something about current issues and keeping up on news in the first three strands.*

RESPONSE: Current events and contemporary issues are not excluded from the first three strands. The guiding questions within each strand explicitly invite teachers to connect

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foundational content to current issues and events. Integrating current events is a curricular decision teachers make throughout the course.

#20 Principles of Civic Prep

Comment: *In the decision-making skills description, I would ask that it be more focused on how to make decisions based on principles. Principles must come before opinion. Compromise is important as long as foundational principles are not broken.*

RESPONSE: This is a thoughtful distinction that reflects the course's own emphasis. The Principles of Civic Preparation already notes that civic skills include "navigating commitment to principles while recognizing the place of compromise."

#21 Principles of Civic Prep

Comment: *Address current events and political parties. Students should be taught the purpose and difference in political parties without being forced into toxic political engagement.*

RESPONSE: Political parties—their development, function, and role in American government—are addressed in Standards 3.3 and 3.5 (developments and controversies in the legislative and executive branches involving political parties) and in Strand 5 (civic participation). The standards provide foundational knowledge about political institutions; teachers retain the flexibility to approach this content in ways that are productive for their students.

#22 Principles of Civic Prep

Comment: *I'm concerned that the Principles of Civic Preparation leaves a lot of room for personal civics opinion to be forced upon our children through civic virtues.*

RESPONSE: The civic virtues listed in the Principles of Civic Preparation—integrity, courage, justice, prudence, moderation, and civic charity—are drawn directly from the Founders' own language in the primary sources required by this course, including the Declaration of Independence and the Federalist Papers. These virtues are presented as a framework for

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understanding why the Founders believed self-governance requires citizens of good civic character—not as personal moral requirements to be assessed individually. They appear in the Principles section, which is an introductory framework for educators, not a standalone strand. Students demonstrate understanding by identifying and analyzing these concepts in primary source texts.

#23 Principles of Civic Prep

Comment: *I disagree that a high school curriculum should be teaching virtues. Truthfulness, honor—these can be quite subjective. Putting the responsibility of deciding on these in the hands of government is a violation of Constitutional principles.*

RESPONSE: The civic virtues listed are drawn from the Founders' own language in the Declaration of Independence, the Federalist Papers, and other required primary sources. They are studied as historical and political concepts—students analyze what the Founders meant by these terms—not as personal moral prescriptions to be adopted or assessed. The Note in the Principles section explicitly explains that this language is used because it is the language of the Declaration and the other required primary sources.

#24 Principles of Civic Prep

Comment: *Where does it talk about foreign policy?*

RESPONSE: This course is specifically focused on American constitutional government and citizenship as mandated by Utah Code 53E-4-205.2. Foreign policy is not a primary focus. Topics related to foreign policy may be addressed through curricular decisions at the local level and will be noted for future standards consideration.

#25 Principles of Civic Prep

Comment: *Include more detail on the important role of religious liberty both in past history and current times.*

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RESPONSE: Religious liberty is addressed explicitly in Standard 1.4, which examines how colonial religious traditions influenced the American Founding and sparked debates about religious liberty, non-establishment of religion, and religious pluralism. Standard 4.3 addresses the First Amendment's protection of freedom of religion and its contemporary interpretation. Teachers may address current religious liberty cases through curricular flexibility within these standards.

#26 Principles of Civic Prep

Comment: *You need to include the ideas of enlightenment philosophers as they shaped the direction of the founding fathers. Also include the debate between federalists and anti-federalists prior to drafting the constitution.*

RESPONSE: Enlightenment political philosophy is the foundational intellectual context for the natural rights tradition studied in Standard 1.3. The Federalist and Anti-Federalist debates are required content in Strands 2 and 3, including study of Federalist Nos. 1, 10, 39, 45, 51, 57, 62, 68, 70, 78, and Brutus 1 and 15, as well as the Articles of Confederation. These are central elements of the course.

#27 Principles of Civic Prep

Comment: *Need more of a focus on Political Science aspects, such as study of political parties, how they developed, and the impact they have. Also a focus on how students can impact government. Finally, a specific focus should be put on finding faults and criticisms in our government structure.*

RESPONSE: Political parties are addressed in Standards 3.3 and 3.5. How students can impact government is a central theme of Strand 5. The standards include required reading of Anti-Federalist Papers (Brutus 1 and 15) and other critical perspectives precisely to develop students' capacity for evaluating government structure—both its strengths and its limitations.

#28 Principles of Civic Prep

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Comment: *What is "ample"? Civic virtues: defining terms like "courage", "justice", or "moderation" is subjective. Measurement and assessment: how do you assess these virtues?*

RESPONSE: The word "ample" is intentionally general to allow teachers professional latitude in determining how much time to devote to different concepts within the course. The civic virtues are studied as historical and political concepts embedded in primary source documents—students demonstrate understanding by identifying and analyzing these terms in required texts, not by being assessed on personal character.

#29 Principles of Civic Prep

Comment: *Less federalist papers.*

RESPONSE: Several primary source documents are required by Utah Code 53E-4-205.2, the legislation mandating this course, and are therefore non-negotiable. The specific Federalist essays cited are intended to direct teachers to the most relevant passages for each standard—not to require complete readings. Excerpts appropriate to the course level are expected throughout, and teachers have discretion in selecting specific passages.

#30 Principles of Civic Prep

Comment: *While civic virtues are important, the standards should ensure that public schools prioritize developing students' capacity for critical thinking, independent judgment, and democratic deliberation over prescribing particular moral or character frameworks.*

RESPONSE: The standards do prioritize critical thinking, evidence-based argument, and civil discourse—these are explicit civic skills in the Principles of Civic Preparation. The civic virtues framework is drawn from the Founders' own language and is studied as historical context, not as a character curriculum. Students analyze and evaluate these concepts rather than being expected to personally adopt them. The civic virtues listed in the Principles of Civic Preparation—integrity, courage, justice, prudence, moderation, and civic charity—are drawn directly from the Founders' own language in the primary sources required by this course, including the Declaration of Independence and the Federalist Papers. These virtues are presented as a framework for understanding why the Founders believed self-governance

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requires citizens of good civic character—not as personal moral requirements to be assessed individually.

#31 Principles of Civic

Comment: *Civic Charity should be called Civic Virtue as that is how it is referred to professionally in the USA. Charity is a uniquely religious idea and the impetus to have virtue relates to religion.*

RESPONSE: "Civic Charity" is a deliberate term reflecting the classical republican tradition and the language of the primary sources studied in this course. The Note in the Principles section clarifies that "civic dispositions" and "civic virtues" share the same meaning.

#32 Principles of Civic Prep

Comment: *I think there needs to be a great emphasis on practicing constitutional citizenship—service projects, registering to vote, attending public meetings, etc.*

RESPONSE: Active citizenship and civic engagement are core themes of Strand 5. Specific activities such as service projects, voter registration, and attending public meetings are curricular decisions made at the local education agency level. Standards describe what students should know and be able to do—they do not prescribe curriculum, specific instructional activities, or materials beyond what is required by Utah Code 53E-4-205.2..

#33 Principles of Civic Prep

Comment: *"Qualities of character" is very broad. What qualities? Who is determining those qualities?*

RESPONSE: The "qualities of character" referred to in the Principles section are the civic virtues listed immediately following that phrase: integrity, courage, civic charity, justice, wisdom and prudence, and moderation and cooperation—all drawn from the Founders' own language in the required primary sources.

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#34 Principles of Civic Prep

Comment: *The statement uses formal and authoritative language that presents its perspective as neutral, but it reflects a specific viewpoint about government and citizenship.*

RESPONSE: The writing team has grounded the language of these standards in the historical record of the American founding and the primary sources required by Utah Code 53E-4-205.2. Where language has been perceived as reflecting a particular viewpoint, we have reviewed it for clarity, precision, and balance. The course is designed to develop students' capacity for critical thinking and evidence-based civic argument—not to advocate for particular political conclusions. The guiding questions throughout each strand are intentionally open-ended to support genuine civic inquiry.

#35 Principles of Civic Prep

Comment: *I'm concerned about the vague nature of some of these civic skills. Specifically "seeking and discerning true principles" and "standing firm on principles, even when it is unpopular." I'm worried that emphasizing these things may lead to students refusing to engage with others.*

RESPONSE: The writing team will review these specific phrases. "Seeking and discerning true principles" refers to the rational process of carefully evaluating evidence and arguments—a critical thinking skill central to this course. "Standing firm on principles" reflects the civic courage the Founders understood as essential to self-governance, and is balanced throughout the course with the civic virtue of "Moderation and Cooperation."

#36 Principles of Civic Prep

Comment: *I do appreciate the focus on Civic Virtues. I do NOT think that we should short-change a full exploration of structure and function and modern application of government to spend excessive time on the virtues.*

RESPONSE: Thank you for this substantive and balanced feedback. The civic virtues are addressed in the Principles of Civic Preparation section, which is an introductory framework for the course—not a separate strand requiring its own dedicated instructional time. The bulk of the course (five full strands) is devoted to constitutional structure, the development

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of rights, and civic participation. The civic virtues framework appears throughout the strands as students analyze and encounter these concepts in primary source documents.

#37 Principles of Civic Prep

Comment: *Civic skills include but are not limited to: [provides a condensed, revised list that eliminates several items and reorganizes others].*

RESPONSE: Thank you for this detailed revision proposal. The writing team will review the current list of civic skills against this suggestion for opportunities to clarify and streamline. The existing list is explicitly framed as "include but are not limited to," providing flexibility.

#38 Principles of Civic Prep

Comment: *The Declaration of Independence cribbed ideas from Locke, so the emphasis on philosophers should continue, as that document was primarily a list of grievances.*

RESPONSE: The natural rights tradition, including Locke's direct influence on the Founders, is a foundational context for Standard 1.3. While specific Enlightenment philosophical texts beyond those required by Utah Code 53E-4-205.2 are curricular decisions, teachers may incorporate them. A supplemental suggested reading list may be developed in instructional resource documents.

#39 Principles of Civic Prep |

Comment: *The Principles of Civic Preparation section is generally strong. Several specific suggestions: clearer framing of the relationship between rights and responsibilities; ensuring balance between foundational principle and contemporary application; making explicit reference to the diversity of American voices.*

RESPONSE: Thank you for this thoughtful and detailed feedback. The writing team has reviewed the specific suggestions raised.

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#40 Principles of Civic Prep

Comment: *We recommend revising "develop attachment to the Constitution and laws" to language such as: "develop understanding of the Constitution, laws, and democratic institutions, and the knowledge and skills needed for informed, responsible participation in civic life."*

RESPONSE: Thank you for this specific and substantive revision recommendation. The writing team will review the phrase "develop attachment to the Constitution and laws" to ensure it is clearly grounded in the historical context of the course—reflecting the Founders' understanding that a republic requires informed and engaged citizens.

#41 Principles of Civic Prep

Comment: *Some parts of the strand explanations read as biased toward a specific way of thinking. The guiding questions seem less biased, and the standards themselves read as very neutral.*

RESPONSE: Thank you for this nuanced observation. The writing team has reviewed the strand introductory language and notes that the guiding questions and individual standards are intentionally framed as open inquiry.

#42 Principles of Civic Prep

Comment: *Get rid of "Willingness to Sacrifice" and simply use "Courage." The focus should remain on principled action and the strength required for civic integrity.*

RESPONSE: "Willingness to Sacrifice" as a civic virtue reflects the Founders' understanding that citizenship in a republic sometimes requires genuine sacrifice—of time, convenience, and comfort—in service of the common good. It is conceptually distinct from "Courage," which focuses on principled action in the face of fear or criticism.

#43 Principles of Civic Prep

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Comment: *Many of the topics asserted as fact in this section would be much more appropriately handled through discussion in a broader ethics class. How were these lists of civic skills and virtues arrived at?*

RESPONSE: The civic virtues and skills in the Principles of Civic Preparation are not asserted as universal moral facts—they are historical and political concepts embedded in the primary sources this course examines, including the Declaration of Independence, the Federalist Papers, and other required texts. The writing team selected these virtues specifically because they appear in the language of the Founders. Students are taught to analyze and evaluate these concepts in their historical context—not to accept them uncritically. The course's open-ended guiding questions are designed to support this critical engagement.

#44 Principles of Civic Prep

Comment: *Highlight and underscore the crucial importance of Native American contributions.*

RESPONSE: Native American contributions are addressed in this course through the required study of the Iroquois Constitution (Standard 2.1), which examines how Indigenous peoples organized themselves politically and the influence of Indigenous confederal principles on American constitutionalism.

#45 Principles of Civic Prep

Comment: *I would recommend creating a new Strand 1 that would include all of the civic virtues and civic skills as well as describing the reading and writing skills utilized in analyzing primary sources.*

RESPONSE: The Principles of Civic Preparation section, which precedes all five strands, addresses civic skills and virtues as the foundational framework for the entire course. Primary source analysis skills—including close reading, sourcing, contextualization, and evaluation—are specifically addressed in Standard 1.7 and incorporated throughout subsequent standards. The writing team considered various organizational approaches and determined this structure best serves the course's goals without creating a separate strand

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that could redirect instructional time from Utah Code 53E-4-205.2-required constitutional content.

#46 Principles of Civic Prep

Comment: *Prudence—I don't love this wording. It is kind of an old-fashioned term that is not student-friendly language.*

RESPONSE: The term "prudence" is intentionally used because it is the language of the primary sources studied in this course, including the Declaration of Independence and the Federalist Papers. Using authentic historical vocabulary helps students engage directly with these foundational texts rather than through paraphrase.

#47 Principles of Civic Prep

Comment: *I wonder whether intellectual humility might be added to the list of dispositions. This is the disposition to maintain an open mind, listen carefully, resist premature conclusions, and change one's mind in the face of stronger evidence.*

RESPONSE: Intellectual humility is a valuable civic disposition. The writing team will consider whether it can be incorporated within the existing framework, perhaps as an element of "Wisdom and Prudence," which already includes discernment and good judgment.

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Strand 1: American Founding Principles

#1 Std 1.1

Comment: *Strand 1:1 should include Enlightenment readings to understand the origin of natural rights. The idea of Common Good must be supported by moral ideals and evidence. Strand 1:1 should also include examples of socialism and communism and evidence of their outcomes not just their ideas.*

RESPONSE: John Locke's Second Treatise on Government and other Enlightenment texts are not required by Utah Code 53E-4-205.2 and therefore cannot be added as required reading. However, Enlightenment philosophy -- including Locke's direct influence on the Declaration of Independence -- is foundational context for Standard 1.3. Supplemental suggested readings, which may include relevant excerpts from Locke, Paine, and other Enlightenment thinkers, may be developed in instructional resource materials and incorporated at the discretion of the local education agency.

#2 Std 1.4

Comment: *It is really strange and myopic to ignore that half of the colonies were founded not for high-minded ideals but for business. That drive for commerce and personal upward mobility is just as foundational to the nation's upbringing as anything else.*

RESPONSE: The economic motivations for colonial settlement, including the commercial interests that drove the Southern colonies and their relationship to the institution of slavery, are important historical context for understanding the Founding. Standard 1.4 focuses specifically on how politically relevant principles from colonial religious traditions influenced constitutional design choices. The broader economic and social history of colonial settlement is taught in US History courses and may be incorporated as contextual background at the teacher's discretion within this course. This concern will be noted for instructional resource development.

#3 Std General

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Comment: *There should also be acknowledgment of the origins of American exceptionalism, like Winthrop's 'City on the Hill' or John Smith's ideas which reinforce the idea that anyone can succeed here.*

RESPONSE: John Winthrop's 'A Model of Christian Charity' (1630), which includes the 'City upon a Hill' language, is an excellent supplemental primary source for teachers introducing Standard 1.4. It directly illustrates how Puritan covenant theology and self-governance influenced early American political self-understanding. While it is not a required text under Utah Code 53E-4-205.2, it may be noted in instructional resource materials as a recommended supplemental source. Standards describe what students should know and be able to do -- they do not prescribe specific instructional activities, lesson formats, or supplemental materials beyond what is required by Utah Code 53E-4-204. Suggestions for additional readings, specific activities, or supplemental resources will be noted and may be incorporated into instructional resource materials developed to support this course. Curricular decisions, including the selection of additional texts and classroom activities, remain with local education agencies.

#4 Std General

Comment: *I suggest adding John Locke's two treatises as a required text for this strand. I believe it had an even greater influence on the Declaration of Independence and American founding principles than the Mayflower Compact did.*

RESPONSE: John Locke's Second Treatise on Government and other Enlightenment texts are not required by Utah Code 53E-4-205.2 and therefore cannot be added as required reading. However, Enlightenment philosophy -- including Locke's direct influence on the Declaration of Independence -- is foundational context for Standard 1.3. Supplemental suggested readings, which may include relevant excerpts from Locke, Paine, and other Enlightenment thinkers, may be developed in instructional resource materials and incorporated at the discretion of the local education agency.

#5 Std General

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Comment: *This course is not a university course. There are too many standards to be completed in the course of a year. Does a 12th grader need to go into the depth of colonial religious traditions in Standard 1.4 in order to be more civically engaged?*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate. Standard 1.4 examines colonial religious traditions as historical and political forces -- not to promote religion, but because debates about religious liberty, non-establishment of religion, and religious pluralism that arose from those traditions led directly to the First Amendment. Understanding why the Founders separated church and state requires understanding the diverse religious landscape they were navigating. The standard explicitly asks students to analyze how these traditions 'sparked debates about religious liberty, non-establishment of religion, religious pluralism, and toleration' -- quintessentially secular constitutional outcomes. This content is approached analytically, not devotionally. Instructional resource materials will support teachers in framing Standard 1.4 as a study of historical forces that produced constitutional design choices, not as religious instruction.

#6 Std General

Comment: *These do not read as standards, but more like a list of activities or lessons. Most of them use the verb 'examine' which is a process verb, not an action verb that describes what you want a student to know or demonstrate.*

RESPONSE: This is a substantive and well-grounded standards-writing observation. The writing team acknowledges that 'examine' appears frequently throughout the standards and agrees that greater specificity in action verbs can strengthen the clarity of expected student performance. We will review Strand 1 standards for opportunities to replace 'examine' with more precise verbs -- such as 'analyze,' 'evaluate,' 'compare,' or 'construct' -- where doing so increases clarity without constraining teacher flexibility.

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#7 Std General

Comment: *The heavy focus on religious influences of the early United States should be countered by the fact that the US is a secular society founded on the principles of the Enlightenment, not 'Judeo-Christian' values.*

RESPONSE: Enlightenment philosophy is foundational context for Standard 1.3, which grounds the natural rights tradition -- including natural law, consent of the governed, social compact, and property rights -- in the same intellectual tradition as Locke's Second Treatise. The writing team considered whether to name specific Enlightenment thinkers in Standard 1.3 and will consider adding an explicit Enlightenment reference. John Locke's Second Treatise is not a required text under Utah Code 53E-4-205.2 but may be noted as a supplemental resource in instructional materials. The course's required primary sources are grounded in the natural rights and republican traditions that Enlightenment philosophy directly produced. Standard 1.5 specifically asks students to analyze the tensions between these traditions, providing space for examining tensions between religious and secular founding influences. The course does not claim that one tradition is primary but examines all three as factors that shaped constitutional design.

#8 Std General

Comment: *No mention of Magna Carta (1215), the English Bill of Rights (1689), Petition of Right (1628), or common-law traditions. These are the direct ancestors of natural rights and rule of law. The strand jumps from classical antiquity to colonial religious traditions; the British constitutional background is a standard bridge in most founding-principles units.*

RESPONSE: The English constitutional heritage -- including the Magna Carta, Petition of Right, and English Bill of Rights -- represents important historical context for the natural rights tradition examined in Standard 1.3 and for the grievances articulated in the Declaration of Independence. These documents are not required by Utah Code 53E-4-205.2, but the writing team will note them as strongly recommended supplemental resources in instructional materials. Teachers may incorporate them as contextual scaffolding for the required primary sources, particularly when establishing the British constitutional tradition students need to understand the Declaration's argument.

#9 Std General

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Comment: *Standard 1.3 requires the concepts of the natural rights tradition, but nothing requires students to examine Locke's Second Treatise. Most comparable curricula require identifying how Jefferson directly borrowed 'life, liberty,' consent of the governed, and the right to alter government from Locke.*

RESPONSE: John Locke's Second Treatise on Government and other Enlightenment texts are not required by Utah Code 53E-4-205.2 and therefore cannot be added as required reading. However, Enlightenment philosophy -- including Locke's direct influence on the Declaration of Independence -- is foundational context for Standard 1.3. Supplemental suggested readings, which may include relevant excerpts from Locke, Paine, and other Enlightenment thinkers, may be developed in instructional resource materials and incorporated at the discretion of the local education agency. The writing team will consider whether Standard 1.3 can be strengthened by adding an explicit reference to Enlightenment philosophers, including Locke, whose Second Treatise directly informed Jefferson's drafting of the Declaration. This may be addressed in the standard itself or through instructional resource materials.

#10 Std 1.5, 1.6

Comment: *Standards 1.5 and 1.6 cover references to traditions and virtues, but there is no explicit requirement for: the preamble ('self-evident truths,' 'all men are created equal'), the full list of grievances as evidence of the social compact being broken, or the conclusion (appeal to 'Supreme Judge,' pledge of 'lives, fortunes, and sacred honor').*

RESPONSE: Standard 1.5 asks students to analyze the Declaration of Independence and identify where its text refers to or implies the classical republican, natural rights, and colonial religious traditions. This necessarily engages all major sections of the document, including the preamble's statement of self-evident truths, the enumerated grievances as evidence of the social compact being violated, and the conclusion. The writing team will review Standard 1.5 to ensure its language makes clear that the entire document -- preamble, body, and conclusion -- is within scope.

#11 Std 1.1

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Comment: *Only after some internet searching was I able to attribute this line of reasoning to Aristotle. I am fairly educated and was completely unclear on this classification. Clarity needs to be added to Standard 1.1.*

RESPONSE: Standard 1.1 draws on the classical political taxonomy originating with Aristotle's Politics, which the American Founders explicitly referenced in their own writings, including Federalist No. 10. In this framework, 'direct democracy' -- meaning rule by an unmediated popular assembly without constitutional constraints -- is categorized as the corrupted form of republican government because the majority can rule without regard for minority rights or constitutional limits. This is precisely the distinction the Founders drew when designing a constitutional republic rather than a direct democracy. Students are taught to examine and critically evaluate this framework as part of understanding the Founders' choices. The writing team recognizes this classification generates confusion and will make necessary changes to the standard.

#12 Std General

Comment: *Why are there so many standards in one strand? 8 is excessive for 1 strand, which most teachers would plan as a single unit. Students have already learned about government's fundamental functions many times.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Required primary source readings are intended to be studied as excerpts, not complete texts. This course is not a repetition of prior coursework. It is a new, full-year course replacing the current Government course as mandated by current law. While some foundational content may overlap with prior courses, the depth of constitutional analysis, primary source engagement, and civic skills application represents a substantial expansion. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#13 Std General

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Comment: *How specific are the parameters on what you want students to read from the Constitution, Articles of Confederation, etc.?*

RESPONSE: The standards specify which primary source documents should be examined in each strand, but do not in most cases prescribe specific passages -- teachers have discretion in selecting excerpts appropriate to the depth of each standard. Upcoming instructional resource materials will include suggested excerpts for each required primary source document, providing concrete parameters while preserving teacher flexibility.

#14 Std General

Comment: *This is too many standards to effectively teach in a year-long course. Many of the standards focus on principles students should have learned in US history. I would recommend combining Standards 1.2, 1.4, and 1.8, and removing 1.7 entirely.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. Teachers may build on students' prior knowledge to accelerate into deeper analysis. Standard 1.7 (primary source analysis skills) and Standard 1.8 (civic participation during the founding era) each serve distinct purposes within Strand 1 and cannot be combined without losing important content. That being said, revisions have been made to streamline some of these standards.

#15 Std 1.1

Comment: *1.1: How do we justify 'direct democracy' as being rule that works for the ruler's good? We have multiple examples of how direct democracy functions well. Direct democracy is seen in multiple levels of state and federal government.*

RESPONSE: Standard 1.1 draws on the classical political taxonomy originating with Aristotle's Politics, which the American Founders explicitly referenced in their own writings, including Federalist No. 10. In this framework, 'direct democracy' -- meaning rule by an unmediated popular assembly without constitutional constraints -- is categorized as the corrupted form of republican government because the majority can rule without regard for minority rights or constitutional limits. This is precisely the distinction the Founders drew when designing a constitutional republic rather than a direct democracy. Students are taught to examine and

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critically evaluate this framework as part of understanding the Founders' choices. The writing team recognizes this classification generates confusion and will make necessary changes to the standard.

#16 Std General

Comment: *I would love to see something about Native Americans and their role in early US government.*

EDITED RESPONSE: Native American political traditions are addressed in Standard 2.1, which requires students to examine the Iroquois Constitution and consider its influence on American constitutionalism.

#17 Std General

Comment: *I think the inclusion of the Mayflower Compact is fine, but there are many other documents and writings by the founders that could really help and provide more clarity.*

RESPONSE: Supplemental suggested readings, which may include relevant excerpts from Locke, Paine, and other Enlightenment thinkers, may be developed in instructional resource materials and incorporated at the discretion of the local education agency. Instructional resource materials will include a supplemental suggested reading list with additional founding-era documents that teachers may use to deepen student understanding.

#18 Std General

Comment: *The importance of Civic Dialogue should be included, especially considering today's political climate. The course should open with this idea so students understand the importance of good civic communication from the start.*

RESPONSE: Civic dialogue and communication skills are foundational to the Principles of Civic Preparation, which introduces and frames all five strands of the course.

#19 Std 1.4

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Comment: *Standard 1.4 could be problematic to teach because of the recent surge in Christian nationalism. What resources will USBE provide to help teachers teach this in a way that would not exacerbate non-Christian students from feeling ostracized? Many of our Founding Fathers were not Christian.*

RESPONSE: Standard 1.4 examines colonial religious traditions as historical and political forces -- not to promote religion, but because debates about religious liberty, non-establishment of religion, and religious pluralism that arose from those traditions led directly to the First Amendment. Understanding why the Founders separated church and state requires understanding the diverse religious landscape they were navigating. The standard explicitly asks students to analyze how these traditions 'sparked debates about religious liberty, non-establishment of religion, religious pluralism, and toleration' -- quintessentially secular constitutional outcomes. This content is approached analytically, not devotionally. Instructional resource materials will support teachers in framing Standard 1.4 as a study of historical forces that produced constitutional design choices, not as religious instruction.

#20 Std General

Comment: *I would argue other documents besides the Mayflower Compact would be helpful here -- i.e., 2nd Treatise of Government, Magna Carta, etc.*

RESPONSE: John Locke's Second Treatise on Government and other Enlightenment texts are not required by Utah Code 53E-4-205.2 and therefore cannot be added as required reading. However, Enlightenment philosophy -- including Locke's direct influence on the Declaration of Independence -- is foundational context for Standard 1.3. Supplemental suggested readings, which may include relevant excerpts from Locke, Paine, and other Enlightenment thinkers, may be developed in instructional resource materials and incorporated at the discretion of the local education agency.

#21 Std General

Comment: *Add John Locke's 2nd Treatise and Thomas Paine's Common Sense; include a component on the Enlightenment.*

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RESPONSE: John Locke's Second Treatise on Government and other Enlightenment texts are not required by Utah Code 53E-4-205.2 and therefore cannot be added as required reading. However, Enlightenment philosophy -- including Locke's direct influence on the Declaration of Independence -- is foundational context for Standard 1.3. Supplemental suggested readings, which may include relevant excerpts from Locke, Paine, and other Enlightenment thinkers, may be developed in instructional resource materials and incorporated at the discretion of the local education agency. Thomas Paine's 'Common Sense' (1776) is also an excellent supplemental source for Standard 1.5, as it directly applies natural rights reasoning to the case for independence. Both texts may be noted in instructional resource materials.

#22 Std General

Comment: *Virtue feels like a word that shouldn't be used in public education. I think 'civil principle' or 'principled citizen' would be a more accurate word choice.*

RESPONSE: The civic virtues listed in this course are drawn directly from the Founders' own language in the required primary sources, including the Declaration of Independence and the Federalist Papers. These virtues are presented as historical and political concepts for analysis, not as personal moral requirements to be assessed individually. Students demonstrate understanding by identifying and analyzing these terms in required primary source documents.

#23 Std 1.1

Comment: *The way this sentence is structured implies that direct democracy 'works for the ruler's good,' however, with direct democracy, there are no rulers, so it should be moved before that qualifier.*

RESPONSE: Standard 1.1 draws on the classical political taxonomy originating with Aristotle's Politics, which the American Founders explicitly referenced in their own writings, including Federalist No. 10. In this framework, 'direct democracy' -- meaning rule by an unmediated popular assembly without constitutional constraints -- is categorized as the corrupted form of republican government because the majority can rule without regard for minority rights or constitutional limits. This is precisely the distinction the Founders drew when designing a constitutional republic rather than a direct democracy. Students are taught to examine and critically evaluate this framework as part of understanding the Founders' choices. The

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writing team recognizes this classification generates confusion and has made adjustments to the standard.

#24 Std 1.6

Comment: *There is no mention of or reference to 'faith' in the Declaration of Independence, so it shouldn't be included in the list of values asserted therein.*

RESPONSE: The writing team will review the list of civic virtues in Standard 1.6 against the text of the Declaration of Independence. 'Faith' as listed refers to the Declaration's closing pledge of 'a firm reliance on the protection of divine Providence' -- but the writing team acknowledges that 'faith' as a standalone virtue may not be the most precise characterization of what the Declaration expresses and will review this term.

#25 Std General

Comment: *I would include the following primary sources as required reading: The Magna Carta, The English Bill of Rights, and the Virginia Declaration of Rights.*

RESPONSE: The Magna Carta, English Bill of Rights, and Virginia Declaration of Rights are not required by Utah Code 53E-4-205.2 but represent important historical context for the natural rights tradition examined in Standard 1.3. The Virginia Declaration of Rights (1776) is especially significant as a direct precursor to both the Declaration of Independence and the Bill of Rights. The writing team will note all three as strongly recommended supplemental resources in instructional materials.

#26 Std General

Comment: *There are A LOT of standards. It would be better if there were fewer standards so teachers can more effectively focus efforts on the most crucial ones.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded

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scope reflects the expanded time. That being said, the writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#27 Std 1.6

Comment: *Decency is historically not one of the civic virtues. It is very subjective and open to vast interpretation.*

RESPONSE: The writing team will review the complete list of civic virtues in Standard 1.6 to ensure each term is grounded in the text of the Declaration of Independence and in the classical civic virtue tradition. 'Decency' will be specifically reviewed.

#28 Std General

Comment: *This curriculum needs to be placed within the context of the American form of government being but one of many forms that exist and thrive. It pushes way too much American exceptionalism and doesn't question the larger white supremacist framework for colonization.*

RESPONSE: The course is designed to develop students' capacity for critical thinking and evidence-based civic argument -- not to advocate for particular political conclusions. The guiding questions throughout each strand are intentionally open-ended to support genuine civic inquiry. Standard 1.1 provides a comparative framework for different types of regimes, situating the American constitutional republic within a broader taxonomy of government forms. The required primary sources in Strand 4 -- including Frederick Douglass's direct critique of the gap between American founding ideals and the reality of slavery -- directly address the contradiction at the heart of the founding.

#29 Std 1.1

Comment: *'Those that work for the ruler's good, including tyranny, oligarchy and direct democracy' -- this is either a very silly mistake or a laughable attempt at indoctrination.*

RESPONSE: Standard 1.1 draws on the classical political taxonomy originating with Aristotle's Politics, which the American Founders explicitly referenced in their own writings, including

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Federalist No. 10. In this framework, 'direct democracy' -- meaning rule by an unmediated popular assembly without constitutional constraints -- is categorized as the corrupted form of republican government because the majority can rule without regard for minority rights or constitutional limits. This is precisely the distinction the Founders drew when designing a constitutional republic rather than a direct democracy. Students are taught to examine and critically evaluate this framework as part of understanding the Founders' choices. The writing team recognizes this classification generates confusion and will make necessary changes to the standard.

#30 Std 1.2, 1.3

Comment: *Standards 1.2 and 1.3 lean toward a single perspective without requiring students to examine competing viewpoints or critiques. Adding that comparison would strengthen critical thinking.*

RESPONSE: Standards 1.2 and 1.3 establish the classical republican and natural rights frameworks that the Founders drew upon, providing a foundation for students to then examine critiques and competing perspectives. Standard 1.5 explicitly asks students to analyze 'tensions between these traditions.' The Anti-Federalist Papers (required in Strand 2) represent the most prominent contemporary critique of the Founders' choices. The writing team will consider whether Standards 1.2 or 1.3 can be strengthened by explicitly inviting students to examine competing viewpoints alongside core arguments.

#31 Std 1.6

Comment: *Standard 1.6 focuses on 'civic virtues,' which are subjective and hard to measure. It would be more effective to emphasize observable skills like analyzing and supporting arguments.*

RESPONSE: The civic virtues listed in this course are drawn directly from the Founders' own language in the required primary sources, including the Declaration of Independence and the Federalist Papers. These virtues are presented as historical and political concepts for analysis, not as personal moral requirements to be assessed individually. Students demonstrate understanding by identifying and analyzing these terms in required primary source documents. Instructional resource materials will clarify assessment expectations and how teachers can engage with these concepts as historical and civic ideas. Standard 1.6 is

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assessed by students' ability to identify and analyze the civic virtues as they appear in the text of the Declaration of Independence -- this is a primary source analysis skill, not a personal character assessment.

#32 Std General

Comment: *Focuses way too much on the founding era and hasn't addressed how we've modernized and evolved since then as a humanity and politically.*

RESPONSE: This course is specifically focused on American constitutional government and citizenship as mandated by HB 381. Strand 4 addresses the development and expansion of constitutional rights and liberties over time, including the Civil War Amendments, the Women's Suffrage movement, and the Civil Rights Movement. Strand 5 focuses on contemporary Utah government and active civic participation. The foundational content of Strand 1 provides the constitutional principles against which students can assess how the nation has evolved.

#33 Std General

Comment: *Please be sure that democracy and republic are not used interchangeably. We are a constitutional democratic republic. Not a democracy.*

RESPONSE: The distinction between direct democracy and constitutional republic is one of the central and explicit distinctions developed in Standard 1.1, which uses the classical political taxonomy the Founders themselves employed. This course consistently uses 'constitutional republic' to describe the American system. Standard 1.1 draws on the classical political taxonomy originating with Aristotle's Politics, which the American Founders explicitly referenced in their own writings, including Federalist No. 10. In this framework, 'direct democracy' -- meaning rule by an unmediated popular assembly without constitutional constraints -- is categorized as the corrupted form of republican government because the majority can rule without regard for minority rights or constitutional limits. This is precisely the distinction the Founders drew when designing a constitutional republic rather than a direct democracy. Students are taught to examine and critically evaluate this framework as part of understanding the Founders' choices.

#34 Std 1.1

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Comment: *1.1 is an extremely loaded standard that does not accurately reflect government in practice. For example, the Islamic Republic of Iran is a mixed republic with many decision-making bodies, yet supporters of this standard's wording would not argue it is for the common good.*

RESPONSE: Standard 1.1 draws on the classical political taxonomy originating with Aristotle's Politics, which the American Founders explicitly referenced in their own writings, including Federalist No. 10. In this framework, 'direct democracy' -- meaning rule by an unmediated popular assembly without constitutional constraints -- is categorized as the corrupted form of republican government because the majority can rule without regard for minority rights or constitutional limits. This is precisely the distinction the Founders drew when designing a constitutional republic rather than a direct democracy. Students are taught to examine and critically evaluate this framework as part of understanding the Founders' choices. The writing team recognizes this classification generates confusion and will make necessary changes to the standard.

#35 Std General

Comment: *Teach that entering the country illegally is illegal period, and MUST BE CHARGED WITH A CRIME, DEPORTED AND NEVER ALLOWED TO ENTER THE COUNTRY AGAIN!*

RESPONSE: Immigration law and enforcement policy are not within the scope of these standards, which focus on American constitutional government and citizenship as mandated by HB 381. Standards related to citizenship and naturalization are addressed in Standard 4.7. This concern will be noted.

#36 Std General

Comment: *Concerned about an entire strand dedicated to religion.*

RESPONSE: Strand 1 is not dedicated to religion -- it contains eight standards covering classical regime types, the republican tradition, natural rights, colonial religious traditions, the Declaration of Independence, civic virtues, primary source analysis skills, and founding-era civic participation. Standard 1.4, which examines colonial religious traditions as one of three intellectual traditions that influenced the founding, is one of eight standards in

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the strand. Its constitutional purpose -- understanding the origins of religious liberty and non-establishment -- is directly relevant to the First Amendment.

#37 Std General

Comment: *Seems like a TON of standards for a single strand.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#38 Std General

Comment: *There is no reason for students to read the Mayflower Compact. It is important to understand its influence, but the entire document isn't necessary.*

RESPONSE: The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be studied as excerpts appropriate to the course level -- no source is expected to be read in its entirety unless the standard specifies otherwise. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing. Additional suggested readings may be developed in supplemental resource materials. No standard in Strand 1 requires reading the Mayflower Compact in its entirety. The document is short (fewer than 200 words) and serves as an accessible primary source for examining the social compact tradition. Teachers may select relevant excerpts or read the full document depending on instructional context.

#39 Std General

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Comment: *There are no mentions of faith or religious observance in the Declaration other than having unalienable rights ordained by the creator. So why is faith a civic virtue? Faith is typically looked at in a religious way, and we have a strong history of separation of church and state.*

RESPONSE: This is a specific and substantive textual concern. The writing team will review the list of civic virtues in Standard 1.6 against the text of the Declaration of Independence. 'Faith' as listed refers to the Declaration's closing pledge of 'a firm reliance on the protection of divine Providence' -- but the writing team acknowledges that 'faith' as a standalone virtue may not be the most precise characterization of what the Declaration expresses and will review this term.

#40 Std General

Comment: *Some of the questions for unit 2 really make more sense with unit 1. I talk about all the founding documents in unit 1.*

RESPONSE: The guiding questions in each strand are offered as suggestions to frame classroom discussion -- they are not required questions that must be addressed in the order listed. Teachers have flexibility to use guiding questions from different strands when they are pedagogically relevant to the content being taught. Instructional resource materials will clarify this flexibility.

#41 Std General

Comment: *I don't think there should be REQUIRED documents for each strand. I would prefer a list of SUGGESTED documents and I would include some of the Enlightenment philosophers for Strand 1.*

RESPONSE: The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be studied as excerpts appropriate to the course level -- no source is expected to be read in its entirety unless the standard specifies otherwise. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing.

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#42 Std 1.1

Comment: *Standard 1.1 is a mess. Why are we placing value statements like 'rule for the common good' and 'work for the ruler's good' when discussing regime types? The monarchy listed should be changed to constitutional monarchy.*

RESPONSE: Standard 1.1 draws on the classical political taxonomy originating with Aristotle's Politics, which the American Founders explicitly referenced in their own writings, including Federalist No. 10. In this framework, 'direct democracy' -- meaning rule by an unmediated popular assembly without constitutional constraints -- is categorized as the corrupted form of republican government because the majority can rule without regard for minority rights or constitutional limits. This is precisely the distinction the Founders drew when designing a constitutional republic rather than a direct democracy.

#43 Std 1.4

Comment: *Standard 1.4 is covered in history, not government. There is no reason to study colonial religious traditions.*

RESPONSE: Standard 1.4 examines colonial religious traditions as historical and political forces -- not to promote religion, but because debates about religious liberty, non-establishment of religion, and religious pluralism that arose from those traditions led directly to the First Amendment. Understanding why the Founders separated church and state requires understanding the diverse religious landscape they were navigating. The standard explicitly asks students to analyze how these traditions 'sparked debates about religious liberty, non-establishment of religion, religious pluralism, and toleration' -- quintessentially secular constitutional outcomes. This content is approached analytically, not devotionally. Instructional resource materials will support teachers in framing Standard 1.4 as a study of historical forces that produced constitutional design choices, not as religious instruction.

#44 Std 1.5

Comment: *Standard 1.5 - get rid of colonial religious traditions. We should be looking at excerpts from Locke and Rousseau.*

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RESPONSE: Standard 1.4 examines colonial religious traditions as historical and political forces -- not to promote religion, but because debates about religious liberty, non-establishment of religion, and religious pluralism that arose from those traditions led directly to the First Amendment. Understanding why the Founders separated church and state requires understanding the diverse religious landscape they were navigating. The standard explicitly asks students to analyze how these traditions 'sparked debates about religious liberty, non-establishment of religion, religious pluralism, and toleration' -- quintessentially secular constitutional outcomes. This content is approached analytically, not devotionally. Instructional resource materials will support teachers in framing Standard 1.4 as a study of historical forces that produced constitutional design choices, not as religious instruction. Standard 1.5 asks students to analyze the Declaration of Independence through the lens of all three traditions studied in Standards 1.2 through 1.4. Locke's influence on the Declaration is an important component of the natural rights analysis within Standard 1.5. John Locke's Second Treatise on Government and other Enlightenment texts are not required by Utah Code 53E-4-204 and therefore cannot be added as required reading. However, Enlightenment philosophy -- including Locke's direct influence on the Declaration of Independence -- is foundational context for Standard 1.3. Supplemental suggested readings, which may include relevant excerpts from Locke, Paine, and other Enlightenment thinkers, may be developed in instructional resource materials and incorporated at the discretion of the local education agency.

#45 Std General

Comment: *Strand 1 feels very dense, especially for the beginning of the course. There are a lot of abstract concepts being introduced all at once. I would suggest sequencing so one or two concepts are introduced at a time before building to synthesis.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#46 Std 1.4

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Comment: *Strand 1.4 deals with topics better addressed in a history class and with little relevance to how our government operates or to political participation.*

RESPONSE: Standard 1.4 examines colonial religious traditions as historical and political forces -- not to promote religion, but because debates about religious liberty, non-establishment of religion, and religious pluralism that arose from those traditions led directly to the First Amendment. Understanding why the Founders separated church and state requires understanding the diverse religious landscape they were navigating. The standard explicitly asks students to analyze how these traditions 'sparked debates about religious liberty, non-establishment of religion, religious pluralism, and toleration' -- quintessentially secular constitutional outcomes. This content is approached analytically, not devotionally. Instructional resource materials will support teachers in framing Standard 1.4 as a study of historical forces that produced constitutional design choices, not as religious instruction.

#47 Std 1.2, 1.3

Comment: *On Standard 1.2 and 1.3, I would ask that the last sentences be removed that require students to apply to current issues. When current issues are brought into discussion it quickly devolves into political opinion.*

RESPONSE: The phrase 'apply core arguments to modern concerns and defend those claims' in Standards 1.2 and 1.3 asks students to use the foundational concepts they have studied -- classical republicanism, the rule of law, natural rights, consent of the governed -- as frameworks for analyzing current civic issues and constructing an evidence-based argument. This is a skills application component, not a directive to take political positions. Teachers have flexibility in selecting the current issues or concerns to which students apply these frameworks. Instructional resource materials will clarify this expectation and suggest example applications. The writing team acknowledges that applying foundational principles to current issues requires careful classroom facilitation. Instructional resource materials will support teachers in framing these application exercises as evidence-based analytical tasks rather than political opinion exercises.

#48 Std 1.2

Comment: *1.2 could be cut since it's covered in 1.1 and 1.3.*

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RESPONSE: Standard 1.2 covers the classical republican tradition -- including civic virtue, participation, representation, and the rule of law -- which is distinct from both Standard 1.1 (the comparative taxonomy of regime types) and Standard 1.3 (the natural rights tradition). These are three separate intellectual traditions that the Founders drew upon simultaneously. However, the writing team has made some changes to streamline these standards.

#49 Std 1.4

Comment: *1.4 is all covered in US History and should not be a major focus.*

RESPONSE: Standard 1.4 examines colonial religious traditions as historical and political forces -- not to promote religion, but because debates about religious liberty, non-establishment of religion, and religious pluralism that arose from those traditions led directly to the First Amendment. Understanding why the Founders separated church and state requires understanding the diverse religious landscape they were navigating. The standard explicitly asks students to analyze how these traditions 'sparked debates about religious liberty, non-establishment of religion, religious pluralism, and toleration' -- quintessentially secular constitutional outcomes. While some foundational content may overlap with prior courses, the depth of constitutional analysis, primary source engagement, and civic skills application represents a substantial expansion. The course's focus is specifically on American constitutional government and citizenship -- not a general social studies survey. Teachers may build on students' prior knowledge to accelerate into deeper analysis.

#50 Std 1.7

Comment: *1.7 - if this needs to be taught, the sources need to be given and it seems like depending on the teacher it would not be covered or would be overwhelmingly covered. Should be cut.*

RESPONSE: Standard 1.7 teaches primary source analysis skills -- identifying reliability, analyzing perspective, contextualizing, and evaluating significance. It is placed in Strand 1 to establish analytical skills students will apply throughout all five strands. Instructional resource materials will include suggested primary source excerpts and scaffolding to support teachers in implementing Standard 1.7 consistently.

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#51 Std 1.1

Comment: *Standard 1.1 seems out of place with the level of detail required. The value assigned to government types appears arbitrary. Corrupt governments of any kind can serve the interests of the ruler over the people.*

EDITED RESPONSE: Appropriate changes have been made to 1.1

#52 Std 1.4

Comment: *The Enlightenment should be specifically mentioned in Standard 1.4. The standard hints at Enlightenment ideals but does not expressly state it when the Great Awakening is mentioned.*

RESPONSE: Enlightenment philosophy is foundational context for Standard 1.3, which grounds the natural rights tradition -- including natural law, consent of the governed, social compact, and property rights -- in the same intellectual tradition as Locke's Second Treatise. The writing team considered whether to name specific Enlightenment thinkers in Standard 1.3 and will consider adding an explicit Enlightenment reference. John Locke's Second Treatise is not a required text under Utah Code 53E-4-205.2, but may be noted as a supplemental resource in instructional materials. The course's required primary sources are grounded in the natural rights and republican traditions that Enlightenment philosophy directly produced. Instructional resource materials for Standard 1.4 can more explicitly contrast the Enlightenment and colonial religious traditions as parallel influences on the Founding.

#53 Std 1.1

Comment: *It would be helpful to share that the Enlightenment was critical to the founding of our country and should be overtly mentioned in 1.1.*

RESPONSE: Enlightenment philosophy is foundational context for Standard 1.3, which grounds the natural rights tradition -- including natural law, consent of the governed, social compact, and property rights -- in the same intellectual tradition as Locke's Second Treatise. The writing team considered whether to name specific Enlightenment thinkers in Standard

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1.3 and will consider adding an explicit Enlightenment reference. John Locke's Second Treatise is not a required text under Utah Code 53E-4-205.2, but may be noted as a supplemental resource in instructional materials. The course's required primary sources are grounded in the natural rights and republican traditions that Enlightenment philosophy directly produced.

#54 Std General

Comment: *Why are we discussing colonial religion? I feel like there is a religious agenda. The Great Awakening was AFTER the Constitution. Let's focus on Enlightenment ideals.*

RESPONSE: A clarification on chronology: the Great Awakening occurred primarily in the 1730s and 1740s -- more than four decades before the Declaration of Independence and nearly five decades before the Constitution. It is examined in Standard 1.4 because its democratizing effects directly influenced how colonists thought about self-governance and religious liberty. Standard 1.4 examines colonial religious traditions as historical and political forces -- not to promote religion, but because debates about religious liberty, non-establishment of religion, and religious pluralism that arose from those traditions led directly to the First Amendment. Understanding why the Founders separated church and state requires understanding the diverse religious landscape they were navigating. The standard explicitly asks students to analyze how these traditions 'sparked debates about religious liberty, non-establishment of religion, religious pluralism, and toleration' -- quintessentially secular constitutional outcomes. This content is approached analytically, not devotionally. Instructional resource materials will support teachers in framing Standard 1.4 as a study of historical forces that produced constitutional design choices, not as religious instruction. The course examines both Enlightenment philosophy (Standard 1.3) and colonial religious traditions (Standard 1.4) as parallel intellectual forces that shaped the Founding.

#55 Std General | Change | *Concepts or Ideas*

Comment: *If we are emphasizing religion it should be in a way that shows it was an influencing factor on individuals and states, as opposed to using religion to support the government system itself.*

RESPONSE: Standard 1.4 is designed precisely in the way this commenter recommends: it examines how colonial religious traditions influenced individuals and communities whose

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debates then shaped constitutional design choices. The standard explicitly asks students to analyze how these traditions 'sparked debates about religious liberty, non-establishment of religion, religious pluralism, and toleration' -- outcomes that are fundamentally about separating religious institutions from government authority, not using religion to support the government system.

#56 Std 1.4 | Change | Wording

Comment: *Language should be added to emphasize how early colonial religious traditions led to the primacy of religious liberty in the American constitutional government.*

RESPONSE: Standard 1.4 already specifies that students will examine how colonial religious traditions 'sparked debates about religious liberty, non-establishment of religion, religious pluralism, and toleration' -- outcomes that culminated in the First Amendment..

#57 Std 1.5

Comment: *A provision should be added to identify how the Declaration of Independence undergirds the primacy of religious liberty in our government and demonstrates the role of religion in United States history.*

RESPONSE: Standard 1.5 asks students to identify where the text of the Declaration refers to or implies the colonial religious tradition, which includes the Declaration's appeals to 'the Laws of Nature and of Nature's God,' the 'Creator,' and 'divine Providence.' The connection between these references and the primacy of religious liberty in the Constitution is a meaningful synthesis students can be asked to make.

#58 Std 1.1

Comment: *The ideas in 1.1 are directly from Aristotle's Politics. This should be mentioned in the standard to give teachers who are not familiar a place to go to research and learn of these ideas.*

RESPONSE: This is an excellent and specific suggestion. The writing team agrees that citing Aristotle's Politics as the source of the classical regime taxonomy in Standard 1.1 would help

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teachers understand the intellectual tradition being examined and prepare them to teach it effectively. The writing team will add this citation either in the standard itself or in the accompanying instructional materials. We appreciate this constructive contribution.

#59 Std General

Comment: *You should include the enlightenment philosophers whose ideas guided the founding fathers and the debate in the federalist papers including the formation of the Articles of Confederation during the revolutionary war.*

RESPONSE: Enlightenment philosophy is foundational context for Standard 1.3, which grounds the natural rights tradition -- including natural law, consent of the governed, social compact, and property rights -- in the same intellectual tradition as Locke's Second Treatise. The writing team considered whether to name specific Enlightenment thinkers in Standard 1.3 and will consider adding an explicit Enlightenment reference. John Locke's Second Treatise is not a required text under Utah Code 53E-4-205.2, but may be noted as a supplemental resource in instructional materials. The course's required primary sources are grounded in the natural rights and republican traditions that Enlightenment philosophy directly produced. The Articles of Confederation and the Federalist/Anti-Federalist debates are examined in Strand 2, which addresses the constitutional founding and the debates that produced the Constitution.

#60 Std General | Add | Concepts or Ideas

Comment: *I would like to see the course teach the concept of 'negative rights' -- the idea that unless we are expressly forbidden a right, it is ours. This concept is different from most countries, who believe rights come from the government.*

RESPONSE: The concept of natural rights as pre-political and not granted by government is foundational to Standard 1.3, which examines the natural rights tradition including natural law, consent of the governed, and social compact. The idea that rights are inherent, not granted by government, is explicitly embedded in this standard. Standard 4.4 addresses the Ninth Amendment, which reserves unenumerated rights to the people.

#61 Std 1.3

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Comment: *Standard 1.3 should be updated to reflect not just 'natural rights' but 'negative rights.'*

Recommended Action: Consider adding 'negative rights' or 'pre-political rights' language to Standard 1.3

RESPONSE: The concept of negative rights -- rights that exist prior to and independently of government -- is embedded in the natural rights tradition examined in Standard 1.3. The writing team will consider whether adding the term 'negative rights' or 'pre-political rights' to Standard 1.3 would strengthen clarity. This concept will be explicitly addressed in instructional materials supporting this standard.

#62 Std General

Comment: *Essential vocabulary should be in bold, with an agreed upon definition. What is the state-approved civic virtue and civic skills definition?*

RESPONSE: A glossary of key terms -- including civic virtue, civic skills, natural rights, social compact, and other foundational concepts -- will be developed as part of the instructional resource materials supporting this course. The standards document itself does not include definitions, but resource materials will provide agreed-upon definitions appropriate to the course level for each essential vocabulary term.

#63 Std 1.1

Comment: *Standard 1.1 - Your list of types of governments is ridiculous. Tyranny is not a type of government nor a regime. I am not sure how aristocracy fits. With how heavy-handed this course is with religion, where is theocracy?*

RESPONSE: Standard 1.1 draws on the classical political taxonomy originating with Aristotle's Politics, which the American Founders explicitly referenced in their own writings, including Federalist No. 10. In this framework, 'direct democracy' -- meaning rule by an unmediated popular assembly without constitutional constraints -- is categorized as the corrupted form of republican government because the majority can rule without regard for minority rights or constitutional limits. This is precisely the distinction the Founders drew when designing a constitutional republic rather than a direct democracy. Students are taught to examine and critically evaluate this framework as part of understanding the Founders'

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choices. The writing team recognizes this classification generates confusion and will add a clarifying note to Standard 1.1 making the Aristotelian basis explicit. In the Aristotelian framework, 'tyranny' refers specifically to the corrupted form of monarchy -- rule by one for the ruler's own benefit rather than the common good. It is used here in this classical analytical sense. Regarding theocracy: while the Founders were aware of theocratic governance, it was not a central category in the classical taxonomy they employed. Adjustments to 1.1 have been made. .

#64 Std General

Comment: *Way too many standards. Is this a college class? Feels like it.*

RESPONSE: The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#65 Std General

Comment: *The civic virtues section should be reframed to emphasize that these virtues are historically important civic ideals for discussion and analysis rather than fixed moral doctrines students are expected to internalize. The standards should also equally emphasize principled dissent and civil disobedience.*

RESPONSE: The civic virtues listed in this course are drawn directly from the Founders' own language in the required primary sources, including the Declaration of Independence and the Federalist Papers. These virtues are presented as historical and political concepts for analysis, not as personal moral requirements to be assessed individually. Students demonstrate understanding by identifying and analyzing these terms in required primary source documents. Instructional resource materials will clarify assessment expectations and how teachers can engage with these concepts as historical and civic ideas. The writing team notes the suggestion about principled dissent and civil disobedience. These themes are directly addressed in Strand 4, which examines the civil rights movement, including Martin Luther King Jr.'s 'Letter from Birmingham Jail' -- a primary text for examining the relationship between principled dissent, civil disobedience, and constitutional fidelity.

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#66 Std General

Comment: *STRAND 1 presents founding philosophy in an overly celebratory and uncritical manner. Standards should present the American Founding as historically significant but contested, including both its aspirational principles and its contradictions.*

RESPONSE: The writing team has grounded the language of these standards in the historical record and the primary sources required by Utah Code 53E-4-2-5.2. Where language has been perceived as reflecting a particular viewpoint, we have reviewed it for clarity, precision, and balance. The course is designed to develop students' capacity for critical thinking and evidence-based civic argument -- not to advocate for particular political conclusions. The guiding questions throughout each strand are intentionally open-ended to support genuine civic inquiry. We have reviewed specific language flagged in public comments and made revisions where appropriate. Standard 1.5 explicitly asks students to analyze 'tensions between' the three founding traditions, providing space for examining the contradictions within the founding. The required primary sources in Strand 4 -- including Frederick Douglass, the Seneca Falls Declaration, and the Letter from Birmingham Jail -- directly engage the gap between founding ideals and founding realities.

#67 Std 1.1

Comment: *Standard 1.1 includes 'direct democracy' among corrupt forms of government. This is highly controversial pedagogically. Classifying direct democracy among governmental forms that operate for 'the ruler's good' risks presenting contested philosophical claims as settled fact.*

RESPONSE: 1.1 draws on the classical political taxonomy originating with Aristotle's Politics, which the American Founders explicitly referenced in their own writings, including Federalist No. 10. In this framework, 'direct democracy' -- meaning rule by an unmediated popular assembly without constitutional constraints -- is categorized as the corrupted form of republican government because the majority can rule without regard for minority rights or constitutional limits. This is precisely the distinction the Founders drew when designing a constitutional republic rather than a direct democracy. Students are taught to examine and critically evaluate this framework as part of understanding the Founders' choices. The writing team recognizes this classification generates confusion and has made changes to 1.1.

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#68 Std General

Comment: *The heavy emphasis on colonial religious traditions may privilege religious influence disproportionately. This section should ensure balanced treatment alongside Enlightenment philosophy, secular liberal thought, and other intellectual traditions that shaped the Founding.*

RESPONSE: Standard 1.4 examines colonial religious traditions as historical and political forces -- not to promote religion, but because debates about religious liberty, non-establishment of religion, and religious pluralism that arose from those traditions led directly to the First Amendment. Understanding why the Founders separated church and state requires understanding the diverse religious landscape they were navigating. The standard explicitly asks students to analyze how these traditions 'sparked debates about religious liberty, non-establishment of religion, religious pluralism, and toleration' -- quintessentially secular constitutional outcomes. This content is approached analytically, not devotionally. Instructional resource materials will support teachers in framing Standard 1.4 as a study of historical forces that produced constitutional design choices, not as religious instruction. Standard 1.3 specifically examines the natural rights and Enlightenment tradition as the second of three founding traditions. Standard 1.5 synthesizes all three traditions and asks students to analyze tensions between them -- including between religious and secular founding influences. The course treats these three traditions as equally important strands of the founding rather than privileging any one.

#69 Std 1.1

Comment: *Standard 1.1: the government shouldn't dictate what is considered the 'common good.' Monarchy is considered common good? Aristocracy, common good? And democracy is tyranny?*

RESPONSE: Standard 1.1 draws on the classical political taxonomy originating with Aristotle's Politics, which the American Founders explicitly referenced in their own writings, including Federalist No. 10. In this framework, 'direct democracy' -- meaning rule by an unmediated popular assembly without constitutional constraints -- is categorized as the corrupted form of republican government because the majority can rule without regard for minority rights or constitutional limits. This is precisely the distinction the Founders drew when designing a constitutional republic rather than a direct democracy. Students are taught to examine and critically evaluate this framework as part of understanding the Founders'

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choices. The writing team recognizes this classification generates confusion and will make adjustments. The course is not asserting that all monarchies or all aristocracies are good governments -- it is teaching the analytical framework the Founders used when they justified why they designed a constitutional republic. Students are expected to apply this framework critically, not accept its categories as settled political truths.

#70 Std 1.2

Comment: *Standard 1.2: Students will examine the classical (are we thinking of the Greeks? Romans?) republican tradition.*

RESPONSE: Standard 1.2's reference to the 'classical republican tradition' encompasses both Greek and Roman political thought -- including Aristotle, Cicero, and their influence on subsequent republican theory. The Founders drew on both traditions. Instructional resource materials will clarify the scope of this term and suggest specific thinkers and texts teachers may use to introduce the classical republican tradition before examining how it appears in the required primary sources.

#71 Std 1.4

Comment: *Eliminate Standard 1.4: Why should students examine colonial religious traditions? What is the purpose of studying Puritan covenant theology and Anglican loyalty to the Crown?*

RESPONSE: Standard 1.4 examines colonial religious traditions as historical and political forces -- not to promote religion, but because debates about religious liberty, non-establishment of religion, and religious pluralism that arose from those traditions led directly to the First Amendment. Understanding why the Founders separated church and state requires understanding the diverse religious landscape they were navigating. The standard explicitly asks students to analyze how these traditions 'sparked debates about religious liberty, non-establishment of religion, religious pluralism, and toleration' -- quintessentially secular constitutional outcomes. This content is approached analytically, not devotionally. Instructional resource materials will support teachers in framing Standard 1.4

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as a study of historical forces that produced constitutional design choices, not as religious instruction.

#72 Std 1.6

Comment: *Civic virtue isn't mentioned in the Declaration of Independence. Parents shouldn't trust the government with teaching or seeking to instill these subjective virtues in their children.*

RESPONSE: The civic virtues listed in this course are drawn directly from the Founders' own language in the required primary sources, including the Declaration of Independence and the Federalist Papers. These virtues are presented as historical and political concepts for analysis, not as personal moral requirements to be assessed individually. Students demonstrate understanding by identifying and analyzing these terms in required primary source documents. Instructional resource materials will clarify assessment expectations and how teachers can engage with these concepts as historical and civic ideas. Regarding the claim that civic virtue isn't mentioned in the Declaration: Standard 1.6 asks students to identify where civic virtues are 'referenced' in the Declaration -- meaning students analyze the language of the Declaration to identify concepts that correspond to civic virtues such as justice, prudence, and courage. Students are not expected to find the exact word 'virtue' in the text. This is a specific and substantive textual concern. The writing team will review the list of civic virtues in Standard 1.6 against the text of the Declaration of Independence. 'Faith' as listed refers to the Declaration's closing pledge of 'a firm reliance on the protection of divine Providence' -- but the writing team acknowledges that 'faith' as a standalone virtue may not be the most precise characterization of what the Declaration expresses and will review this term. Similarly, 'decency' is not a traditionally recognized classical civic virtue and will be reviewed for potential revision or clarification.

#73 Std General

Comment: *Specific thinking fallacies should be taught such as: false dilemma, ingroup/outgroup bias, strawman, slippery slope, and ad hominem.*

RESPONSE: Teaching students to identify logical fallacies and cognitive biases is an important component of the civic skills this course develops, particularly in supporting students' ability to evaluate primary sources, construct arguments, and engage in civil

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discourse. This will be noted for instructional resource development, where specific thinking fallacies and rhetorical analysis skills can be addressed as instructional tools supporting the standards' skills components.

#74 Std General

Comment: *The Mayflower Compact point should also have equality added to it, as this was the first time that all men regardless of income had a vote.*

RESPONSE: The historical details about the Mayflower Compact's scope -- including who participated in self-governance under the Compact -- are rich topics for classroom inquiry. Teachers may encourage students to examine what 'equal' participation in the Compact meant in historical context and to evaluate competing historical claims about its scope, using Standard 1.7's primary source analysis skills.

#75 Std General | Delete | Concepts or Ideas

Comment: *There is too much here for any one class. A lot of the foundation work could be laid in 8th grade.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#76 Std General

Comment: *Overall, the standards are NOT WRITTEN AT A 12th-grade level -- these are university-level. If we want an average 12th grader to pass this course, it needs to be adjusted rigor-wise. Standards are also too long and very wordy.*

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RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#77 Std 1.1

Comment: *Standard 1.1 - You'll compare governments that serve the people (monarchy, aristocracy, and republic) against those that serve only the rulers (tyranny, oligarchy, and direct democracy).*

RESPONSE: The student-friendly paraphrase offered here will be noted for instructional resource development, where accessible language for introducing this standard to students will be included. In addition the writing team has made changes to 1.1.

#78 Std 1.2

Comment: *Standard 1.2 - As a teacher, applying to modern concerns can be very tricky. Also, there is a TON in this standard. There has to be a better way to synthesize the concept part with the skill part.*

RESPONSE: The writing team acknowledges that Standard 1.2 is content-dense and changes have been made for better framing.

#79 Std General, 1.4

Comment: *Too repetitive -- every standard has them argue and defend their claims. Have the standards build on each other. Have students do a variety of different skills, like being able to identify natural rights in their own lives.*

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RESPONSE: This is a constructive instructional design observation. The recurring 'apply and defend' language is intended to build a consistent argumentation habit across the course rather than prescribing identical activities. Teachers have significant flexibility to vary the form of student application -- from written arguments to Socratic discussion to identifying natural rights in contemporary news.

#80 Std 1.5

Comment: 1.5 WAY TOO LONG!

RESPONSE: The writing team will review Standard 1.5 for opportunities to improve concision without reducing the scope of its synthesis requirement. Standard 1.5 is intentionally integrative -- asking students to analyze the Declaration through multiple lenses simultaneously -- but the wording can likely be streamlined. This is noted for revision.

#81 Std 1.7

Comment: 1.7 seems really out of place -- they should have already done this in their other social studies classes. Can this be combined or put in the preface?

RESPONSE: Standard 1.7 teaches primary source analysis skills -- identifying reliability, analyzing perspective, contextualizing, and evaluating significance. It is placed in Strand 1 to establish analytical skills students will apply throughout all five strands. While students may have encountered primary sources in prior courses, this standard establishes the specific analytical framework the course uses consistently across all required primary source documents. It is not intended to stand alone as a complete unit but is integrated into the broader primary source work of Strand 1 and subsequent strands.

#82 Std 1.8

Comment: 1.8 - As a teacher, I am not sure what it is even asking.

RESPONSE: Standard 1.8 explores how ordinary citizens during the American independence movement applied civic skills -- working through local government, civic and religious associations, and petitioning representatives -- to effect political change. This standard is

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distinct from the others because it grounds abstract founding principles in the practical civic actions of ordinary people, not just Founders and philosophers. It directly connects to Strand 5's focus on active citizenship by showing students that civic participation has always been the mechanism through which constitutional principles become lived reality. The writing team acknowledges that Standard 1.8 benefits from more concrete examples. Instructional resource materials will clarify what types of historical evidence satisfy this standard -- for example, students might examine colonial town meetings, the Sons of Liberty's organizing activities, petition campaigns to colonial assemblies, or newspaper campaigns as examples of ordinary citizens using civic skills to effect political change.

#83 Std General

Comment: *The Mayflower Compact, sure. But not Rousseau, Locke, Hobbes, and Montesquieu? You can't have a conversation about founding principles without the philosophies that were referenced when formulating the Constitution.*

RESPONSE: John Locke's Second Treatise on Government and other Enlightenment texts are not required by Utah Code 53E-4-205.2 and therefore cannot be added as required reading. However, Enlightenment philosophy -- including Locke's direct influence on the Declaration of Independence -- is foundational context for Standard 1.3. Supplemental suggested readings, which may include relevant excerpts from Locke, Paine, and other Enlightenment thinkers, may be developed in instructional resource materials and incorporated at the discretion of the local education agency. Montesquieu's influence on the constitutional design of separated powers is addressed in Strand 2. Hobbes and Rousseau may be included as supplemental contextual readings at the teacher's discretion.

#84 Std General, 1.1, 1.4, 1.6

Comment: *The standards reflect a particular interpretive framework that may unintentionally promote both American and Christian exceptionalism while limiting critical examination of historical complexity. Standard 1.1 presents classical forms of government using value-laden distinctions that may oversimplify political systems.*

RESPONSE: The writing team has grounded the language of these standards in the historical record and the primary sources required by HB 381. Where language has been perceived as reflecting a particular viewpoint, we have reviewed it for clarity, precision, and balance. The

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course is designed to develop students' capacity for critical thinking and evidence-based civic argument -- not to advocate for particular political conclusions. The guiding questions throughout each strand are intentionally open-ended to support genuine civic inquiry. The writing team notes the concern about Standard 1.4 and Christian exceptionalism. The standard includes Puritan, Anglican, and Quaker traditions -- three distinct and sometimes competing colonial religious perspectives -- and explicitly addresses debates about non-establishment and religious pluralism. Standard 1.4 examines colonial religious traditions as historical and political forces -- not to promote religion, but because debates about religious liberty, non-establishment of religion, and religious pluralism that arose from those traditions led directly to the First Amendment. Understanding why the Founders separated church and state requires understanding the diverse religious landscape they were navigating. The standard explicitly asks students to analyze how these traditions 'sparked debates about religious liberty, non-establishment of religion, religious pluralism, and toleration' -- quintessentially secular constitutional outcomes. This content is approached analytically, not devotionally.

#85 Std General

Comment: *I think identifying skills and virtues are very appropriate. This strand seems a little content light.*

RESPONSE: Thank you for this affirming feedback. Strand 1 establishes the foundational intellectual traditions -- classical republican, natural rights, and colonial religious -- that students will apply throughout all five strands. The writing team designed it as a conceptual foundation rather than an encyclopedic survey, with primary source analysis (Standard 1.7) and applied civic history (Standard 1.8) grounding the conceptual content in historical evidence and practice.

#86 Std General

Comment: *This strand and strands 1-4 feel like someone was allowed to pick their favorite founding stories and documents. It prescribes specific texts for teachers instead of allowing teacher choice and autonomy. I worry high school seniors will struggle with the academic demands.*

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RESPONSE: The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be studied as excerpts appropriate to the course level -- no source is expected to be read in its entirety unless the standard specifies otherwise. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing. Additional suggested readings may be developed in supplemental resource materials. The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-204. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate. The required primary sources are mandated by HB 381 and reflect the legislature's determination of the documents most central to constitutional literacy. Within the scope of required sources, teachers retain significant flexibility in selecting excerpts, sequencing instruction, and adapting materials for their students. Instructional resource materials will include extensive scaffolding support.

#87 Std 1.1

Comment: Referencing Standard 1.1: I'm interested to see the state's perspective on why monarchy and aristocracy are included as government systems that rule for the common good, and why direct democracy is categorized as one that works for the ruler's good.

RESPONSE: Standard 1.1 draws on the classical political taxonomy originating with Aristotle's Politics, which the American Founders explicitly referenced in their own writings, including Federalist No. 10. In this framework, 'direct democracy' -- meaning rule by an unmediated popular assembly without constitutional constraints -- is categorized as the corrupted form of republican government because the majority can rule without regard for minority rights or constitutional limits. This is precisely the distinction the Founders drew when designing a constitutional republic rather than a direct democracy. Students are taught to examine and critically evaluate this framework as part of understanding the Founders' choices. The writing team recognizes this classification generates confusion and changes have been made to the standard.

#88 Std General

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Comment: Referencing Standard 1.4: I would find discussions of religious philosophy uncomfortable to teach in a class focused on government. Students can gain an understanding about religious freedom without being required to analyze colonial religious traditions.

RESPONSE: Standard 1.4 examines colonial religious traditions as historical and political forces -- not to promote religion, but because debates about religious liberty, non-establishment of religion, and religious pluralism that arose from those traditions led directly to the First Amendment. Understanding why the Founders separated church and state requires understanding the diverse religious landscape they were navigating. The standard explicitly asks students to analyze how these traditions 'sparked debates about religious liberty, non-establishment of religion, religious pluralism, and toleration' -- quintessentially secular constitutional outcomes. This content is approached analytically, not devotionally. Instructional resource materials will support teachers in framing Standard 1.4 as a study of historical forces that produced constitutional design choices, not as religious instruction. The writing team acknowledges that discussing religious traditions in a classroom requires careful, inclusive framing. Instructional resource materials will specifically address how to approach Standard 1.4 in a way that is analytically focused on political and constitutional outcomes rather than theological content, and that is welcoming to students from all backgrounds

#89 Std 1.2, 1.3

Comment: 1.2, 1.3 -- Language regarding students applying core arguments to modern concerns and defending claims is unclear. If this is just referring to applying the concepts to modern times, we should just say that.

RESPONSE: The phrase 'apply core arguments to modern concerns and defend those claims' in Standards 1.2 and 1.3 asks students to use the foundational concepts they have studied -- classical republicanism, the rule of law, natural rights, consent of the governed -- as frameworks for analyzing current civic issues and constructing an evidence-based argument. This is a skills application component, not a directive to take political positions. Teachers have flexibility in selecting the current issues or concerns to which students apply these frameworks.

#90 Std General, 1.4

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Comment: 1.4 - I just finished a Master's Degree and I did not see this content until that degree. High School students do not need this level of detail. They can understand that colonists came for religious freedom without understanding the difference between Puritanism and Anglicanism.

RESPONSE: The writing team acknowledges that Standard 1.4 requires a level of historical specificity that is unfamiliar to many teachers and students. Instructional resource materials will include clear, accessible explanations of each colonial religious tradition and its constitutional relevance -- focusing on the distinct contributions of each tradition to debates about self-governance, religious liberty, and non-establishment. Teachers will not be expected to teach the theological content of these traditions, but their political and constitutional significance.

#91 Std General

Comment: Guiding questions are way too subjective and do not mention how much minority groups played a big role in the making of the US.

RESPONSE: The guiding questions for Strand 1 are intentionally open-ended to allow teachers and students to examine the founding from multiple perspectives, including the experiences of those not included in the original 'We the People.' Required primary sources throughout the course include voices that directly challenge founding exclusions -- Frederick Douglass, the Seneca Falls Declaration of Sentiments, and the Letter from Birmingham Jail -- demonstrating how the founding ideals were applied, challenged, and expanded over time. This concern will be noted for instructional resource development to ensure teachers are supported in framing Strand 1 in ways that acknowledge the founding's exclusions alongside its aspirations.

#92 Std General

Comment: Guiding questions are too subjective and fail to include and discuss minority groups.

RESPONSE: The guiding questions for Strand 1 are intentionally open-ended to allow teachers and students to examine the founding from multiple perspectives, including the

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experiences of those not included in the original 'We the People.' Required primary sources throughout the course include voices that directly challenge founding exclusions -- Frederick Douglass, the Seneca Falls Declaration of Sentiments, and the Letter from Birmingham Jail -- demonstrating how the founding ideals were applied, challenged, and expanded over time.

#93 Std 1.4

Comment: *Cut the Mayflower Compact, as well as the entirety of Standard 1.4.*

RESPONSE: The Mayflower Compact is required by Utah Code 53E-4-205.2 and cannot be removed from the course. Standard 1.4 examines colonial religious traditions as historical and political forces -- not to promote religion, but because debates about religious liberty, non-establishment of religion, and religious pluralism that arose from those traditions led directly to the First Amendment. Understanding why the Founders separated church and state requires understanding the diverse religious landscape they were navigating. The standard explicitly asks students to analyze how these traditions 'sparked debates about religious liberty, non-establishment of religion, religious pluralism, and toleration' -- quintessentially secular constitutional outcomes. This content is approached analytically, not devotionally.

#94 Std 1.2

Comment: *Also cut Standard 1.2.*

RESPONSE: Standard 1.2 covers the classical republican tradition -- the foundational intellectual framework for understanding why the American constitutional republic is structured as it is. Removing this standard would eliminate a critical building block for students' understanding of civic virtue, the rule of law, and representative government, which appear throughout all subsequent strands.

#95 Std General

Comment: *If you want another relevant document to enhance the purposes of this Strand, a section of John Locke's 'Second Treatise on Government' is more applicable to civic virtues and responsibilities.*

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RESPONSE: John Locke's Second Treatise on Government and other Enlightenment texts are not required by Utah Code 53E-4-205.2 and therefore cannot be added as required reading. However, Enlightenment philosophy -- including Locke's direct influence on the Declaration of Independence -- is foundational context for Standard 1.3. Supplemental suggested readings, which may include relevant excerpts from Locke, Paine, and other Enlightenment thinkers, may be developed in instructional resource materials and incorporated at the discretion of the local education agency.

#96 Std General

Comment: *I think it is also important, in learning about the Declaration of Independence, to examine some of the history that led the colonists to this point -- Salutary Neglect, the colonists' illegal printing of money, locally funded wars like King Philip's War.*

RESPONSE: The historical context leading up to the Declaration -- including colonial economic grievances and colonial military experience -- is valuable background for students analyzing the Declaration's list of grievances in Standard 1.5. While this context goes beyond the scope of the standards themselves, it represents excellent contextual teaching material. This will be noted for instructional resource development as recommended background material for Standard 1.5.

#97 Std General

Comment: *Sorry. This is where I meant to put that I think excerpts from John Locke's Second Treatise on Government should be part of the required reading.*

RESPONSE: John Locke's Second Treatise on Government and other Enlightenment texts are not required by Utah Code 53E-4-205.2 and therefore cannot be added as required reading. However, Enlightenment philosophy -- including Locke's direct influence on the Declaration of Independence -- is foundational context for Standard 1.3. Supplemental suggested readings, which may include relevant excerpts from Locke, Paine, and other Enlightenment thinkers, may be developed in instructional resource materials and incorporated at the discretion of the local education agency.

#98 Std General

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Comment: *The strand explanation seems biased toward a specific way of thinking, as if the end goal were to convince students to believe certain ways. Also, 'Students need to be able to see...and appreciate' is not a measurable or even qualitatively appropriate goal.*

RESPONSE: The writing team has grounded the language of these standards in the historical record and the primary sources required by Utah Code 53E-4-205.2. Where language has been perceived as reflecting a particular viewpoint, we have reviewed it for clarity, precision, and balance. The course is designed to develop students' capacity for critical thinking and evidence-based civic argument -- not to advocate for particular political conclusions. The guiding questions throughout each strand are intentionally open-ended to support genuine civic inquiry. We have reviewed specific language flagged in public comments and made revisions where appropriate. The writing team will review the strand introduction language for phrases like 'see and appreciate' that imply predetermined outcomes rather than open inquiry. We agree that strand-level language should frame the course as an exploration rather than prescribing the emotional responses students should have.

#99 Std 1.6

Comment: *1.6 should highlight civic responsibilities rather than virtues.*

RESPONSE: Civic responsibilities -- the obligations that accompany constitutional rights -- are addressed throughout the course, particularly in Standard 4.3 (rights and responsibilities under the First Amendment) and throughout Strand 5 (practicing constitutional citizenship). Standard 1.6 specifically asks students to identify civic virtues in the text of the Declaration of Independence, which is a related but distinct task: understanding what character the Founders believed was necessary for self-governance provides context for understanding why civic responsibilities were codified. Both are important and are addressed in different parts of the course

#100 Std General

Comment: *The word 'virtue' needs to be taken out of the whole document. The term 'virtues' should be avoided because it is inherently subjective.*

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RESPONSE: The civic virtues listed in this course are drawn directly from the Founders' own language in the required primary sources, including the Declaration of Independence and the Federalist Papers. These virtues are presented as historical and political concepts for analysis, not as personal moral requirements to be assessed individually. Students demonstrate understanding by identifying and analyzing these terms in required primary source documents.

#101 Std General

Comment: *The question about how adherence to rule of law produces freedom and safety is built on the assumption that the rule of law DOES produce freedom and safety. An important part of any civic education is understanding that there is sometimes tension between particular laws and the wellbeing of the people.*

RESPONSE: This is a substantive and thoughtful observation. The guiding question 'How does adherence to the rule of law uphold the civic virtues of justice and equality? How does it produce freedom and safety?' is intended as a starting point for inquiry. The tension between law and justice is directly examined through Frederick Douglass and Martin Luther King Jr. in later strands.

#102 Std 1.1

Comment: *Standard 1.1 puts governing structures into two categories and includes absurd examples. Who has determined that monarchy is for the common good? Who has determined that direct democracy is 'for the ruler's good?' These statements are laden with value judgements and unsupported.*

RESPONSE: Standard 1.1 draws on the classical political taxonomy originating with Aristotle's Politics, which the American Founders explicitly referenced in their own writings, including Federalist No. 10. In this framework, 'direct democracy' -- meaning rule by an unmediated popular assembly without constitutional constraints -- is categorized as the corrupted form of republican government because the majority can rule without regard for minority rights or constitutional limits. This is precisely the distinction the Founders drew when designing a constitutional republic rather than a direct democracy. Students are taught to examine and critically evaluate this framework as part of understanding the Founders' choices.

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#103 Std 1.5

Comment: *Standard 1.5 asks students to identify instances where certain rights and traditions are implied. This wades dangerously into a conversation about textualism vs. literalism. What is sufficient grounds for an implication to be considered valid?*

RESPONSE: Standard 1.5's reference to identifying where the Declaration 'implies' certain traditions is an analytical task grounded in textual evidence -- not a constitutional interpretation exercise. Students are asked to read the Declaration's language and identify which passages draw on or are consistent with the traditions they have studied.

#104 Std General

Comment: *Too much focus on religion and religious involvement. Don't give religious institutions more credit than they deserve. Religion was only one of those founding ideas.*

RESPONSE: Standard 1.4 examines colonial religious traditions as historical and political forces -- not to promote religion, but because debates about religious liberty, non-establishment of religion, and religious pluralism that arose from those traditions led directly to the First Amendment. Understanding why the Founders separated church and state requires understanding the diverse religious landscape they were navigating. The standard explicitly asks students to analyze how these traditions 'sparked debates about religious liberty, non-establishment of religion, religious pluralism, and toleration' -- quintessentially secular constitutional outcomes. This content is approached analytically, not devotionally. Instructional resource materials will support teachers in framing Standard 1.4 as a study of historical forces that produced constitutional design choices, not as religious instruction. Standard 1.4 is one of eight standards in Strand 1. The strand equally addresses classical republican philosophy (Standard 1.2) and the natural rights tradition (Standard 1.3). Standard 1.5 explicitly asks students to analyze tensions between all three traditions.

#105 Std 1.4

Comment: *Don't students learn about 1.4 in United States History I and AP United States History? This content can be repetitive.*

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RESPONSE: This course is not a repetition of prior coursework. It is a new, full-year course replacing the current Government course as mandated by Utah Code 53E-4-205.2. While some foundational content may overlap with prior courses, the depth of constitutional analysis, primary source engagement, and civic skills application represents a substantial expansion. The course's focus is specifically on American constitutional government and citizenship -- not a general social studies survey. Teachers may build on students' prior knowledge to accelerate into deeper analysis. Standard 1.4 approaches colonial religious traditions specifically through the lens of their constitutional significance -- the debates about religious liberty and non-establishment that they sparked. This constitutional focus is distinct from the historical survey treatment these topics typically receive in US History courses.

#106 Std General

Comment: *While I recognize the intent of Standards 1.1 and 1.2, I have significant concerns regarding the use of the term 'common good' as currently written. The phrase is inherently subjective and lacks a clear, consistent definition in a pluralistic society.*

RESPONSE: The phrase 'common good' is drawn from the classical republican tradition studied throughout this course -- used by Aristotle, Cicero, and the American Founders. The relationship between the common good and individual natural rights involves genuine and ongoing civic tension that is one of the central themes of this course. Rather than resolving this tension for students, the standards present it as a key topic of civic inquiry. Guiding questions throughout each strand invite students to examine how different founding traditions balance individual rights with responsibilities to the community.

#107 Std General

Comment: *The description makes it seem as though classical republicanism, natural rights, and colonial religious traditions are three equal pillars. I would argue that colonial religious traditions are less foundational than the first two.*

RESPONSE: The relative weight of these three traditions in shaping the American Founding is itself a subject of scholarly debate and is one of the productive tensions students are invited to examine in this course. Standard 1.5 explicitly asks students to discuss 'the similarities and potential tensions between these traditions' -- which includes analyzing how their relative

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influence can be assessed through the text of the Declaration. The writing team does not assert that the three traditions are equally weighted in every context, but that each made distinct and significant contributions to constitutional design.

#108 Std General

Comment: *Highlight and underscore the crucial importance of Native American contributions.*

RESPONSE: Native American contributions to American political thought -- including the Iroquois Confederacy's influence on American constitutionalism -- are addressed in Standard 2.1.

#109 Std 1.7

Comment: *Standard 1.7 is an example of a skill standard that could be listed in a Strand that describes the essential skills used throughout the course. If creating a skill strand, remove this standard and place it there.*

RESPONSE: Standard 1.7 teaches primary source analysis skills -- identifying reliability, analyzing perspective, contextualizing, and evaluating significance. It is placed in Strand 1 to establish analytical skills students will apply throughout all five strands. While students may have encountered primary sources in prior courses, this standard establishes the specific analytical framework the course uses consistently across all required primary source documents. It is not intended to stand alone as a complete unit but is integrated into the broader primary source work of Strand 1 and subsequent strands. The Principles of Civic Preparation section, which introduces all five strands, serves the function of a course-wide skills framework. Standard 1.7 is placed in Strand 1 to establish these analytical skills at the point in the course when students first engage deeply with primary sources, so they are immediately applicable.

#110 Std 1.1

Comment: *I am concerned that there is a political bias in Strand 1 looking at Standard 1.1, which seems to favor monarchy and be critical of direct democratic involvement.*

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RESPONSE: Standard 1.1 draws on the classical political taxonomy originating with Aristotle's Politics, which the American Founders explicitly referenced in their own writings, including Federalist No. 10. In this framework, 'direct democracy' -- meaning rule by an unmediated popular assembly without constitutional constraints -- is categorized as the corrupted form of republican government because the majority can rule without regard for minority rights or constitutional limits. This is precisely the distinction the Founders drew when designing a constitutional republic rather than a direct democracy. Students are taught to examine and critically evaluate this framework as part of understanding the Founders' choices. Changes have been made to 1.1 for clarification.

#111 Std General

Comment: *Guiding question grammar: 'How DOES the Mayflower Compact and Declaration of Independence' should read 'How DO' since it is a group of two documents.*

EDITED RESPONSE: Thank you for this specific correction.

#112 Std 1.1

Comment: *'Mixed government' could easily be mistaken for 'mixed economy.' 'Republic' is commonly referred to as representative democracy in common language. 'Types of regimes or forms of government' is redundant.*

RESPONSE: This is a useful readability observation. The term 'mixed government' is the classical term for a republic that combines elements of different regime types -- it is used here for historical accuracy, as the Founders themselves used this language.

#113 Std 1.2, 1.3

Comment: *1.2-1.3 -- Where is the discussion of General Will? This is also an Enlightened concept that leads to a belief in majority rule (tempered by individual rights, of course).*

RESPONSE: Rousseau's concept of the General Will is not required content under HB 381, but it represents important intellectual context for comparing different Enlightenment

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approaches to the social compact -- particularly the contrast between Rousseau's more collectivist conception and Locke's individual rights emphasis.

#114 Std General

Comment: *I don't love the mention of colonial religious traditions because it gets dicey mixing religion and politics. With the rise of Christian Nationalism, it should be worded differently.*

RESPONSE: Standard 1.4 examines colonial religious traditions as historical and political forces -- not to promote religion, but because debates about religious liberty, non-establishment of religion, and religious pluralism that arose from those traditions led directly to the First Amendment. Understanding why the Founders separated church and state requires understanding the diverse religious landscape they were navigating. The standard explicitly asks students to analyze how these traditions 'sparked debates about religious liberty, non-establishment of religion, religious pluralism, and toleration' -- quintessentially secular constitutional outcomes. This content is approached analytically, not devotionally. Instructional resource materials will support teachers in framing Standard 1.4 as a study of historical forces that produced constitutional design choices, not as religious instruction.

#115 Std 1.4

Comment: *I feel that Standard 1.4 could be pushing religion. I understand the need to discuss religion when considering the Mayflower Compact, but I do not see the need for this to be an entire standard.*

RESPONSE: Standard 1.4 examines colonial religious traditions as historical and political forces -- not to promote religion, but because debates about religious liberty, non-establishment of religion, and religious pluralism that arose from those traditions led directly to the First Amendment. Understanding why the Founders separated church and state requires understanding the diverse religious landscape they were navigating. The standard explicitly asks students to analyze how these traditions 'sparked debates about religious liberty, non-establishment of religion, religious pluralism, and toleration' -- quintessentially secular constitutional outcomes. This content is approached analytically, not devotionally. Instructional resource materials will support teachers in framing Standard 1.4

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as a study of historical forces that produced constitutional design choices, not as religious instruction.

#116 Std General

Comment: *Would suggest including suggestions to learn about John Locke and other Enlightenment philosophers dealing with social contract theory. Also including world influences including Cicero, Greek and Roman governments, and the Magna Carta.*

RESPONSE: John Locke's Second Treatise on Government and other Enlightenment texts are not required by Utah Code 53E-4-205.2 and therefore cannot be added as required reading. However, Enlightenment philosophy -- including Locke's direct influence on the Declaration of Independence -- is foundational context for Standard 1.3. Supplemental suggested readings, which may include relevant excerpts from Locke, Paine, and other Enlightenment thinkers, may be developed in instructional resource materials and incorporated at the discretion of the local education agency. Cicero and the Roman republican tradition are important context for Standard 1.2's examination of the classical republican tradition. Instructional resource materials will include a supplemental reading list that addresses these sources.

#117 Std General

Comment: *I feel it is important to reexamine some of the specific reasons that brought the colonists to write the Declaration of Independence -- Salutary Neglect, the illegal printing of money, locally funded wars like King Philip's War -- as these represent moments when colonists became an independent people.*

RESPONSE: The historical context leading up to the Declaration -- including colonial economic and military experience -- is valuable background for students analyzing the Declaration's list of grievances in Standard 1.5. While this content goes beyond the scope of the standards themselves, it represents excellent contextual teaching material

#118 Std General

Comment: *I like that there is mention of 'natural rights,' 'rule of law,' and the 'tensions between the common good and individual rights.'*

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RESPONSE: Thank you for this affirming feedback. The natural rights tradition, the rule of law, and the tension between the common good and individual rights are indeed central themes of this course and we are pleased that these foundational concepts are resonating with reviewers.

#119 Std 1.5, 1.6

Comment: *There are far too many standards for this unit. Standards 1.5 and 1.6 could be combined.*

RESPONSE: Standards 1.5 and 1.6 address related but distinct analytical tasks. Standard 1.5 asks students to analyze the Declaration through the lens of the three intellectual traditions examined in Standards 1.2 through 1.4, and to discuss tensions between them. Standard 1.6 asks students specifically to identify and analyze civic virtues referenced in the Declaration's language. Combining them would risk losing one of these two distinct analytical skills. The writing team will review whether the standards' language can be clarified to make this distinction more evident.

#120 Std 1.8

Comment: *1.8 is unnecessary.*

RESPONSE: Standard 1.8 explores how ordinary citizens during the American independence movement applied civic skills -- working through local government, civic and religious associations, and petitioning representatives -- to effect political change. This standard is distinct from the others because it grounds abstract founding principles in the practical civic actions of ordinary people, not just Founders and philosophers. It directly connects to Strand 5's focus on active citizenship by showing students that civic participation has always been the mechanism through which constitutional principles become lived reality.

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Strand 2: Constitutional Government and Union

#1 Std 2.7

Comment: *Strand 2:7. This course can provide examples of virtues from American history and their outcomes, but should never define or measure students' virtue, courage, or civic charity -- those are personal values and beliefs.*

RESPONSE: The civic virtues listed in this course are drawn directly from the Founders' own language in the required primary sources, including the Declaration of Independence and the Federalist Papers. These virtues are presented as historical and political concepts for analysis, not as personal moral requirements to be assessed individually. Students demonstrate understanding by identifying and analyzing these terms in required primary source documents. Instructional resource materials will clarify assessment expectations. Standard 2.7 assesses students' ability to practice civil discourse -- formulating sound arguments, persuasion, and compromise -- drawing on the civic virtues as analytical concepts from the primary sources studied in this strand. It does not require students to demonstrate personal virtue or assess their character.

#2 Std General

Comment: *It is very strange that there is no mention of slavery or the role slavery took in the debates. Slavery was a central issue at every step of the process and not including it here in the discussion of who is American or who deserves freedom and liberty is a strange omission. I would also include Judith Sargent Murray's 'On the Equality of the Sexes' as another important voice.*

RESPONSE: The question of slavery is explicitly addressed in Standard 2.4, which requires students to analyze 'the question of slavery' as one of the principal topics of debate at the Constitutional Convention, and in the guiding question 'How did issues such as representation, executive power, and slavery shape the final Constitution?' The writing team takes seriously the concern that slavery should not be treated as merely one topic among many. We will review Standard 2.4 to consider whether stronger language is warranted -- for example, explicitly naming the Three-Fifths Compromise and the Slave Trade Compromise as

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specific subjects of analysis -- to reflect slavery's centrality to the constitutional founding. The required primary sources in Strand 4, including Frederick Douglass's 'What to the Slave Is the Fourth of July?' and the Seneca Falls Declaration, directly address the constitutional contradiction that slavery represented. Judith Sargent Murray's 'On the Equality of the Sexes' (1790) is an important supplemental primary source that teachers may incorporate. It will be noted for instructional resource development. Standards describe what students should know and be able to do -- they do not prescribe specific instructional activities, lesson formats, or supplemental materials beyond what is required by Utah Code 53E-4-204. Suggestions for additional readings, specific activities, or supplemental resources will be noted and may be incorporated into instructional resource materials developed to support this course. Curricular decisions, including the selection of additional texts and classroom activities, remain with local education agencies.

#3 Std General

Comment: *Many standards use the process verb 'Examine' instead of an action verb that describes the output or outcome. The committee should ask: 'Once the examination is over, what is the enduring understanding the student should walk away with?' Encourage them to swap 'examine' for verbs like Categorize, Differentiate, Analyze, or Evaluate.*

RESPONSE: This is a substantive and well-grounded standards-writing observation. The writing team acknowledges that 'examine' appears frequently throughout Strand 2 and agrees that greater specificity in action verbs can strengthen the clarity of expected student performance. We will review Strand 2 standards for opportunities to replace 'examine' with more precise verbs -- such as 'analyze,' 'compare,' 'evaluate,' or 'construct a claim' -- where doing so increases clarity without constraining teacher flexibility. This is consistent with standards-writing best practice and is a confirmed revision for Strand 2.

#4 Std 2.1

Comment: *2.1 -- the mention of the British Constitution could be hard for new teachers, due to the British not having a constitution. They are run by statute and common law.*

RESPONSE: Standard 2.1 uses 'British Constitution' in the sense recognized in political science and comparative government -- referring to the uncoded constitutional tradition of

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Great Britain, which consists of landmark statutes (Magna Carta, Petition of Right, English Bill of Rights, Act of Settlement), common law precedents, and established constitutional conventions. Britain's uncoded constitutional tradition is directly relevant here because it was the constitutional inheritance of the American colonists and the framework against which they measured their own grievances. The writing team will consider adding a brief clarifying note to Standard 2.1 making clear that the 'British Constitution' refers to this uncoded tradition rather than a single written document, so that teachers and students are not confused.

#5 Std General

Comment: *You need to include something about women and voting. And about how former slaves and Black people petitioned to have their rights recognized. You can't ignore all the problems of the constitution, especially about how difficult the constitution is to amend and the discussion about how states wanted the right to change the constitution.*

Response: Women's suffrage and the expansion of voting rights are addressed in Standard 4.8, which examines Utah's role in women's suffrage and the Nineteenth Amendment. The Reconstruction Amendments and the constitutional struggles of formerly enslaved people for full citizenship and voting rights are addressed in Standard 4.6. The constitutional amendment process is addressed in Standard 3.3. The writing team takes the concern about slavery's centrality seriously. The question of slavery is explicitly addressed in Standard 2.4, which requires students to analyze 'the question of slavery' as one of the principal topics of debate at the Constitutional Convention, and in the guiding question 'How did issues such as representation, executive power, and slavery shape the final Constitution?' The writing team takes seriously the concern that slavery should not be treated as merely one topic among many. We will review Standard 2.4 to consider whether stronger language is warranted -- for example, explicitly naming the Three-Fifths Compromise and the Slave Trade Compromise as specific subjects of analysis -- to reflect slavery's centrality to the constitutional founding. The required primary sources in Strand 4, including Frederick Douglass's 'What to the Slave Is the Fourth of July?' and the Seneca Falls Declaration, directly address the constitutional contradiction that slavery represented.

#6 Std General

Comment: *There are also too many standards for each strand.*

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Response: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#7 Std 2.3, 2.4, General

Comment: *Shays' Rebellion (1786-87) is the single most common trigger event cited for why the Articles failed and the Convention was called. It demonstrated the Confederation's inability to suppress domestic unrest or raise revenue. Utah's earlier Government and Citizenship standards explicitly listed Shays' Rebellion. Virtually every national curriculum treats it as required background.*

Response: Shays' Rebellion is a widely recognized and important contextual event for understanding the failure of the Articles of Confederation and the urgency of the Constitutional Convention. While it is not named explicitly in the current standards, Standard 2.2's examination of 'the strengths and deficiencies of the Articles and the need for a new convention' provides the appropriate framework for teachers to incorporate it. The writing team will consider whether Shays' Rebellion should be named explicitly in Standard 2.2 or in the strand's guiding questions. It will be noted in instructional resource materials as strongly recommended contextual background for Standards 2.2 and 2.3.

#8 Std General

Comment: *Should include a section on early state constitutions.*

Response: Early state constitutions are explicitly included in Standard 2.1, which asks students to examine various ways peoples organized themselves politically prior to 1787, 'including the Iroquois Constitution, the British Constitution, and the early state constitutions.' No additional standard is needed.

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#9 Std 2.1

Comment: *Standard 2.1 -- I want something about the Iroquois and their role.*

Response: The Iroquois Constitution is explicitly a required primary source document in Strand 2 and is named directly in Standard 2.1. The Iroquois Constitution is a required primary source in Strand 2 because it demonstrates that confederal principles of self-governance and distributed authority were practiced by Indigenous peoples on this continent prior to the American founding -- an important comparative context for Standard 2.1. No student is expected to read all 108 clauses of the Iroquois Constitution; teachers should select relevant excerpts illustrating confederal principles. Instructional resource materials will include suggested excerpts.

#10 Std 2.1, General

Comment: *Strand 2 feels like it could possibly run into some repetition from the US History I curriculum. 2.1 is also a place that you could insert the Magna Carta and English Bill of Rights. I really think we're putting ourselves at a disservice if we don't discuss the non-US influences on our government and Constitution.*

Response: This course is not a repetition of prior coursework. It is a new, full-year course replacing the current Government course as mandated by Utah Code 53E-4-205.2. While some foundational content may overlap with prior courses, the depth of constitutional analysis, primary source engagement, and civic skills application represents a substantial expansion. Teachers may build on students' prior knowledge to accelerate into deeper analysis. The Magna Carta and English Bill of Rights are not required by Utah Code 53E-4-204 but are important context for Standard 2.1's examination of how peoples organized themselves politically prior to 1787. They will be noted in instructional resource materials as strongly recommended supplemental sources. Standard 2.1 uses 'British Constitution' in the sense recognized in political science and comparative government -- referring to the uncoded constitutional tradition of Great Britain, which consists of landmark statutes (Magna Carta, Petition of Right, English Bill of Rights, Act of Settlement), common law precedents, and established constitutional conventions. Britain's uncoded constitutional tradition is directly relevant here because it was the constitutional inheritance of the American colonists and the framework against which they measured their own grievances. The writing team will consider adding a brief clarifying note to Standard 2.1 making clear

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that the 'British Constitution' refers to this uncoded tradition rather than a single written document, so that teachers and students are not confused

#11 Std General

Comment: *Federalist papers are HARD for kids to understand and there are TOO many in the documents. I would only have Fed 10 and Brutus 1 here.*

Response: The Federalist Papers required in Strand 2 are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. The writing team acknowledges that these texts are challenging for many high school readers. No paper is expected to be read in full -- teachers should select excerpts appropriate to the depth of each standard. Federalist No. 10 and Brutus 1 are required for Standard 2.5; Federalist Nos. 39 and 45 are required for Standard 2.6. Instructional resource materials will include suggested excerpts and scaffolding strategies to support teachers in making these texts accessible to all students.

#12 Std General

Comment: *Understanding the Electoral College is a foundational piece for understanding United States Government. I feel as if understanding the Electoral College should be spelled out within this curriculum. It is implied in 2.4, 3.4, and 5.7. However, in one of these strands (probably 3.4) understanding the Electoral College should be clearly identified.*

Response: The Electoral College is addressed in Standard 2.4, which requires students to analyze 'the power and election of the executive branch' as a principal topic of debate at the Constitutional Convention -- the Electoral College was the Founders' chosen mechanism for this election. The writing team will consider whether naming the Electoral College explicitly in Standard 2.4 would strengthen clarity, and will also review Standard 3.4 for the appropriate place to address the Electoral College's structure and function in greater depth. This concern is noted for revision.

#13 Std General

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Comment: *I would argue it is a misstep in understanding the foundation of checks and balances as found in the American Republic without a study of John Locke's philosophies and his Two Treatises of Government should be included in required reading.*

Response: John Locke's Second Treatise on Government is not required by Utah Code 53E-4-205.2 and cannot be added as required reading. However, Locke's influence on the natural rights tradition -- foundational to the constitutional framework examined throughout this strand -- is addressed in Strand 1, Standard 1.3. Locke's work may be noted in instructional resource materials as recommended supplemental reading for teachers who wish to draw explicit connections between Enlightenment political philosophy and constitutional design.

#14 Std General

Comment: *This course relies on the idea that students already think having a republic is a good idea. It would be beneficial for students who do not think that to study excerpts of Aristotle's Politics.*

Response: Aristotle's Politics is the foundational source for the classical regime taxonomy examined in Standard 1.1, and teachers may draw on it throughout Strand 2 as well. It is not a required text under Utah Code 53E-4-205.2 but may be noted in instructional resource materials as a recommended supplemental source.

#15 Std General

Comment: *There are too many standards for teachers to be effective.*

Response: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

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#16 Std General

Comment: *So many of these standards just have students examine and analyze primary sources. While this isn't a bad skill, it shouldn't be the only skill focused on. Students get more out of role-playing some of these skills rather than always analyzing what others did. I like that Standard 2.3 is a compare-and-contrast skill and Standard 2.7 has students practice civil discourse.*

Response: This is a substantive and well-grounded standards-writing observation. The writing team acknowledges that 'examine' appears frequently throughout Strand 2 and agrees that greater specificity in action verbs can strengthen the clarity of expected student performance. We will review Strand 2 standards for opportunities to replace 'examine' with more precise verbs -- such as 'analyze,' 'compare,' 'evaluate,' or 'construct a claim' -- where doing so increases clarity without constraining teacher flexibility. This is consistent with standards-writing best practice and is a confirmed revision for Strand 2. The writing team notes the positive feedback on Standards 2.3 and 2.7's more active skill requirements. Standard 2.7 explicitly frames the entire strand's content as preparation for students to practice civil discourse, argumentation, persuasion, and compromise -- an applied civic performance task. Instructional resource materials will suggest varied skill formats, including simulation, deliberation, and structured academic controversy activities, so that primary source analysis is one tool among several.

#17 Std General

Comment: *This is very John Birch Society propaganda and that worries me. I would like other perspectives to be included, and the sources of these interpretations of primary sources cited explicitly.*

Response: The writing team has grounded the language of these standards in the historical record and the primary sources required by Utah Code 53E-4-205.2. Where language has been perceived as reflecting a particular viewpoint, we have reviewed it for clarity, precision, and balance. The course is designed to develop students' capacity for critical thinking and evidence-based civic argument -- not to advocate for particular political conclusions. The guiding questions throughout each strand are intentionally open-ended to support genuine civic inquiry. Strand 2 explicitly requires study of both Federalist and Anti-Federalist arguments -- including Brutus 1, which represents the strongest Anti-Federalist critique of

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the proposed Constitution. The required guiding questions ask students to weigh arguments 'for and against ratifying the U.S. Constitution.' The course is designed to present the founding as a contested debate, not a settled conclusion.

#18 Std General

Comment: *Strand 2 would benefit from more emphasis on multiple perspectives and critical analysis.*

Response: The writing team has grounded the language of these standards in the historical record and the primary sources required by Utah Code 53E-4-205.2. Where language has been perceived as reflecting a particular viewpoint, we have reviewed it for clarity, precision, and balance. The course is designed to develop students' capacity for critical thinking and evidence-based civic argument -- not to advocate for particular political conclusions.

#19 Std 2.5

Comment: *Standard 2.5 focuses on Federalist and Anti-Federalist arguments, which is good, but it could more clearly require students to evaluate how those debates relate to modern issues and differing viewpoints today.*

Response: This is a thoughtful suggestion. Standards 1.2 and 1.3 include explicit 'apply core arguments to modern concerns' components. The writing team will consider whether similar language strengthening the connection between the founding ratification debates and contemporary constitutional debates would improve Standard 2.5. The guiding question 'Which, if any of these questions and arguments are still prevalent in the United States today?' already invites this connection and may be sufficient.

#20 Std General

Comment: *I would suggest strengthening the connection to current debates and ensuring students are analyzing, not just learning, these ideas.*

Response: This is a substantive and well-grounded standards-writing observation. The writing team acknowledges that 'examine' appears frequently throughout Strand 2 and

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agrees that greater specificity in action verbs can strengthen the clarity of expected student performance. We will review Strand 2 standards for opportunities to replace 'examine' with more precise verbs -- such as 'analyze,' 'compare,' 'evaluate,' or 'construct a claim' -- where doing so increases clarity without constraining teacher flexibility. Teachers may suggest activities that ask students to apply Strand 2's foundational debates to contemporary constitutional issues -- connecting the Federalist/Anti-Federalist arguments over federal power, representation, and rights to current policy debates.

#21 Std General

Comment: *Please emphasize that rights are connected to responsibility. Also please emphasize that 'congress shall make no law respecting the establishment of religion' is NOT separation of Church and state, as Secularism was NOT what the founding fathers ever intended as the religion of the state.*

Response: The relationship between rights and responsibilities is addressed throughout the course, particularly in Standard 4.3 and Strand 5. The First Amendment's Establishment Clause -- its original meaning, its subsequent judicial interpretation, and the ongoing debates about what it requires -- is addressed in Standard 4.3. Standards describe what students should know and be able to do; the specific interpretive debates about the First Amendment's religious clauses are appropriate content for that standard.

#22 Std General

Comment: *As currently constructed, this is a history course rather than a government course. 'Examine' is used as the task verb frequently. What are we doing with that understanding? Could students not just read a book about this?*

Response: The writing team designed Strand 2 to serve a constitutional government course, not a history course. The historical content in Standards 2.1 through 2.4 is included because understanding why the Founders made specific constitutional choices requires understanding the political circumstances and competing proposals they were responding to. Standard 2.7 explicitly grounds this historical study in active civic skills -- civil discourse, argumentation, persuasion, and compromise -- connecting the founding debates directly to students' own civic practice. Strands 3 through 5 focus increasingly on the Constitution's structure, application, and students' civic participation today. This is a substantive and

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well-grounded standards-writing observation. The writing team acknowledges that 'examine' appears frequently throughout Strand 2 and agrees that greater specificity in action verbs can strengthen the clarity of expected student performance. We will review Strand 2 standards for opportunities to replace 'examine' with more precise verbs -- such as 'analyze,' 'compare,' 'evaluate,' or 'construct a claim' -- where doing so increases clarity without constraining teacher flexibility

#23 Std 2.7

Comment: *2.7 is also vague in nature. I understand giving teachers flexibility, but there needs to be some ideas or many might take the path of least resistance and fail to engage with the standard fully.*

Response: Standard 2.7 is intentionally structured as an applied performance standard -- it asks students to draw lessons from the entire strand and practice civil discourse, argumentation, persuasion, and compromise. Its flexibility is a feature, not a gap: it allows teachers to design deliberation activities suited to their students. Instructional resource materials will include specific suggested activities for Standard 2.7, such as structured academic controversy, mock ratification conventions, and Socratic seminars on the Federalist/Anti-Federalist debates, to support teachers in implementing it with rigor

#24 Std General

Comment: *Personally don't feel Iroquois Constitution is needed. Not sure all of those Federalist papers are the best option. Should split the US Constitution into the Bill of Rights and the primary Constitution.*

Response: The Iroquois Constitution is a required primary source in Strand 2 because it demonstrates that confederal principles of self-governance and distributed authority were practiced by Indigenous peoples on this continent prior to the American founding -- an important comparative context for Standard 2.1. No student is expected to read all 108 clauses of the Iroquois Constitution; teachers should select relevant excerpts illustrating confederal principles. Instructional resource materials will include suggested excerpts. The Federalist Papers required in Strand 2 are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. The writing team acknowledges that these texts are challenging for many high school readers. No paper is expected to be read in full -- teachers should

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select excerpts appropriate to the depth of each standard. Federalist No. 10 and Brutus 1 are required for Standard 2.5; Federalist Nos. 39 and 45 are required for Standard 2.6. Instructional resource materials will include suggested excerpts and scaffolding strategies to support teachers in making these texts accessible to all students. The Bill of Rights is explicitly addressed in Standard 2.5, which requires students to examine 'the need for a Bill of Rights' as a central argument in the ratification debates. The Constitution and the Bill of Rights are both within scope of Strand 2.

#25 Std General

Comment: *Again SO MANY STANDARDS. There are way too many. No way three strands can be taught in a semester with this many standards.*

Response: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#26 Std General

Comment: *There needs to be a standard that focuses on how the two sides compromised. This is vaguely addressed at the Constitutional Convention, but it's just a comparison versus what actually happened in the end. Why is there no standard on the two political sides specifically?*

Response: Standard 2.4 asks students to analyze 'the processes and principal topics of debate at the Convention' -- the compromises that resulted from those debates (including the Great Compromise on representation) are essential content for meeting this standard. Standard 2.5 directly examines the core arguments of Federalist and Anti-Federalist positions.

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#27 Std 2.1

Comment: *There is no written 'British Constitution.' I teach AP Comparative Government and could discuss it. But I don't know what this standard means when it says 'British Constitution.'*

Response: Standard 2.1 uses 'British Constitution' in the sense recognized in political science and comparative government -- referring to the uncoded constitutional tradition of Great Britain, which consists of landmark statutes (Magna Carta, Petition of Right, English Bill of Rights, Act of Settlement), common law precedents, and established constitutional conventions. Britain's uncoded constitutional tradition is directly relevant here because it was the constitutional inheritance of the American colonists and the framework against which they measured their own grievances. The writing team will consider adding a brief clarifying note to Standard 2.1 making clear that the 'British Constitution' refers to this uncoded tradition rather than a single written document, so that teachers and students are not confused.

#28 Std General

Comment: *Required documents -- students struggle with the language of the Federalist Papers. Only Fed 10 and Brutus 1 should be required. The Iroquois Constitution is 16 pages with 108 clauses. Do you expect the students to read it in its entirety?*

Response: The Federalist Papers required in Strand 2 are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. The writing team acknowledges that these texts are challenging for many high school readers. No paper is expected to be read in full -- teachers should select excerpts appropriate to the depth of each standard. Federalist No. 10 and Brutus 1 are required for Standard 2.5; Federalist Nos. 39 and 45 are required for Standard 2.6. Instructional resource materials will include suggested excerpts and scaffolding strategies to support teachers in making these texts accessible to all students. The Iroquois Constitution is a required primary source in Strand 2 because it demonstrates that confederal principles of self-governance and distributed authority were practiced by Indigenous peoples on this continent prior to the American founding -- an important comparative context for Standard 2.1. No student is expected to read all 108 clauses of the Iroquois Constitution; teachers should select relevant excerpts illustrating confederal principles. Instructional resource materials will include suggested excerpts.

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#29 Std 2.1

Comment: *Standard 2.1 -- there isn't a British Constitution. It is based on tradition and multiple documents. The students do not need to read early state constitutions.*

Response: Standard 2.1 uses 'British Constitution' in the sense recognized in political science and comparative government -- referring to the uncoded constitutional tradition of Great Britain, which consists of landmark statutes (Magna Carta, Petition of Right, English Bill of Rights, Act of Settlement), common law precedents, and established constitutional conventions. Britain's uncoded constitutional tradition is directly relevant here because it was the constitutional inheritance of the American colonists and the framework against which they measured their own grievances. The writing team will consider adding a brief clarifying note to Standard 2.1 making clear that the 'British Constitution' refers to this uncoded tradition rather than a single written document, so that teachers and students are not confused.

#30 Std 2.5, 2.6

Comment: *Standard 2.6 -- we should wait until we go through the US Constitution before having the students study the 10th Amendment, or move. You could also get rid of this standard and combine it with 2.5.*

Response: Standard 2.6 builds directly on Standard 2.5 by moving from the ratification debate to the principles and practice of federalism as implemented in the Constitution and the Tenth Amendment. The writing team designed this sequence to move from the founding argument (Standard 2.5) to the constitutional outcome (Standard 2.6). Teachers have flexibility in how they sequence instruction within these standards, and may choose to contextualize the Tenth Amendment within a broader examination of the Constitution's structure before returning to federalism.

#31 Std General

Comment: *More firmly teach federalism.*

Response: Standard 2.6 is specifically dedicated to the principles and practice of federalism, examined through Federalist Nos. 39 and 45 and the Tenth Amendment. These sources

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directly address how the Constitution distributes power between national and state governments. Federalism also appears in Standard 3.2 and throughout the examination of the Constitution's structure in Strand 3.

#32 Std General, 2.2, 2.3, 2.4, 2.5

Comment: *Strand 2 focuses on some of the most important content in the course, and I appreciate the emphasis on the Constitutional Convention, federalism, and the debates between Federalists and Anti-Federalists. The inclusion of key documents like Federalist 10 and Brutus 1 is especially valuable. However, the concern is not the content itself, but the volume of expectations attached to it.*

Response: Thank you for this affirming and balanced feedback. The writing team is pleased that the core content of Strand 2 resonates with reviewers. The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#33 Std 2.1

Comment: *Standard 2.1 is better addressed in a history class and provides little practical relevance for today.*

Response: The writing team designed Strand 2 to serve a constitutional government course, not a history course. The historical content in Standards 2.1 through 2.4 is included because understanding why the Founders made specific constitutional choices requires understanding the political circumstances and competing proposals they were responding to. Standard 2.7 explicitly grounds this historical study in active civic skills -- civil discourse, argumentation, persuasion, and compromise -- connecting the founding debates directly to students' own civic practice. Strands 3 through 5 focus increasingly on the Constitution's structure, application, and students' civic participation today. Standard 2.1 specifically establishes the comparative context -- examining how peoples organized themselves

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politically before the American constitutional founding -- that students need to understand why the Founders made the specific constitutional choices they did. This historical grounding is essential to the constitutional government focus of the course.

#34 Std General

Comment: *I appreciate the term 'compound constitutional republic' in describing the federal system. I would ask that the first draft of the Declaration of Independence be included in the discussions, particularly Jefferson's grievance against the king for the slave trade. I think it is vital for students to understand that attempts were made to end slavery even before the Civil War.*

Response: The appreciation for the term 'compound constitutional republic' is noted -- it reflects the precision this course aims to develop. Jefferson's deleted slavery passage from the Declaration's first draft is an excellent supplemental primary source for Standard 2.4's examination of the question of slavery at the Constitutional Convention and for Standard 1.5's analysis of the Declaration. It dramatically illustrates that debates about slavery shaped the founding documents from their very first drafts. This will be noted for instructional resource development.

#35 Std 2.1

Comment: *Could be renamed 'Federalism.' 2.1 -- fine but reword the British Constitution.*

Response: The strand title 'Constitutional Government and Union' reflects the scope of Strand 2, which covers more than federalism -- it addresses the full process of constitutional founding, from pre-constitutional political organization through the ratification debates. Standard 2.1 uses 'British Constitution' in the sense recognized in political science and comparative government -- referring to the uncoded constitutional tradition of Great Britain, which consists of landmark statutes (Magna Carta, Petition of Right, English Bill of Rights, Act of Settlement), common law precedents, and established constitutional conventions. Britain's uncoded constitutional tradition is directly relevant here because it was the constitutional inheritance of the American colonists and the framework against which they measured their own grievances. The writing team will consider adding a brief clarifying note to Standard 2.1 making clear that the 'British Constitution' refers to this

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uncodified tradition rather than a single written document, so that teachers and students are not confused.

#36 Std 2.6

Comment: *2.2-2.5 are fine. 2.6 could be cut -- no one needs to read those Federalist papers.*

Response: The Federalist Papers required in Strand 2 are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. The writing team acknowledges that these texts are challenging for many high school readers. No paper is expected to be read in full -- teachers should select excerpts appropriate to the depth of each standard.

#37 Std 2.4

Comment: *Overall, I think this strand looks good, but it is interesting to me that the Virginia and New Jersey plans are specifically called out, but not the actual resolutions to the debates. I would suggest explicitly adding the compromises of the Constitution (Great Compromise, 3/5 Compromise, electoral college, and slave trade compromise) to Standard 2.4.*

Response: This is a substantive and well-grounded suggestion. Standard 2.4 names the Virginia Plan and the New Jersey Plan as the competing proposals but does not explicitly name the compromises that resolved those debates. The writing team will consider adding explicit reference to the Great Compromise, the Three-Fifths Compromise, the Electoral College, and the Slave Trade Compromise to Standard 2.4.

#38 Std General

Comment: *I like that the Iroquois Constitution is included, but the study of other Native governing practices should also be included.*

Response: The Iroquois Constitution is a required primary source in Strand 2 because it demonstrates that confederal principles of self-governance and distributed authority were practiced by Indigenous peoples on this continent prior to the American founding -- an important comparative context for Standard 2.1. No student is expected to read all 108

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clauses of the Iroquois Constitution; teachers should select relevant excerpts illustrating confederal principles. Instructional resource materials will include suggested excerpts. The study of other Indigenous governing traditions -- including other confederal or tribal governance structures -- may be incorporated at teachers' discretion.

#39 Std General

Comment: *Use the term 'national government' instead of 'federal.'*

Response: The term 'federal' is used throughout the standards because it is the constitutionally accurate term used in the primary sources this course examines, including the Federalist Papers and the Constitution itself. The course aims to develop students' precise constitutional vocabulary. The Founders themselves used both 'federal' and 'national' in specific and distinct ways -- this distinction is itself an important topic in Standard 2.5.

#40 Std General

Comment: *Way too many standards. Is this a college class? Feels like it.*

Response: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#41 Std 2.7

Comment: *2.7 has a wording issue. It says '...and compromise the civic virtues...' I hope the intent of the standard is not this.*

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Response: Thank you for this specific catch. Standard 2.7 contains a grammatical error: '...persuasion, and compromise the civic virtues...' should read '...persuasion, and compromise -- and the civic virtues of courage, justice, moderation, and civic charity.' This correction is confirmed and will be made in the standards document.

#42 Std 2.4

Comment: *Primary Concern: The standards mention slavery as a convention issue but insufficiently foreground its centrality. Slavery should be more explicitly emphasized as a foundational contradiction and major structuring force in constitutional development, rather than merely one topic among many debated at the Constitutional Convention.*

Response: The question of slavery is explicitly addressed in Standard 2.4, which requires students to analyze 'the question of slavery' as one of the principal topics of debate at the Constitutional Convention, and in the guiding question 'How did issues such as representation, executive power, and slavery shape the final Constitution?' The writing team takes seriously the concern that slavery should not be treated as merely one topic among many. We will review Standard 2.4 to consider whether stronger language is warranted -- for example, explicitly naming the Three-Fifths Compromise and the Slave Trade Compromise as specific subjects of analysis -- to reflect slavery's centrality to the constitutional founding. The required primary sources in Strand 4, including Frederick Douglass's 'What to the Slave Is the Fourth of July?' and the Seneca Falls Declaration, directly address the constitutional contradiction that slavery represented.

#43 Std 2.7

Comment: *Standard 2.7 reads '...persuasion, and compromise the civic virtues of courage, justice, moderation, and civic charity.' This doesn't make grammatical sense. Probably it should end, '...persuasion, and compromise -- and the civic virtues of courage, justice, moderation, and civic charity.'*

Response: Thank you for this specific catch. Standard 2.7 contains a grammatical error: '...persuasion, and compromise the civic virtues...' should read '...persuasion, and compromise -- and the civic virtues of courage, justice, moderation, and civic charity.' This correction is confirmed and will be made in the standards document

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#44 Std 2.1

Comment: *The U.S. Constitution was the first complete written national constitution. Before its creation, confederal principles were practiced in the Iroquois Constitution, the Articles of Confederation, and separation of powers within state constitutions. The U.S. Constitution embeds power in a federal system -- that is, a compound constitutional republic. [Comment appears to be offering a suggested rewrite of the strand introduction.]*

Response: Thank you for this detailed engagement with the strand introduction. The writing team will review the Strand 2 introduction for clarity and concision, including whether the description of the 'compound constitutional republic' and the relationship between the federal system and tribal governments can be expressed more clearly. The overall framework of the introduction -- establishing constitutional precedents before the U.S. Constitution -- is intentionally placed here and will be retained.

#45 Std General

Comment: *This is very heavily focused on the Federalist Papers. Although important, an overemphasis on them will potentially push authoritarian ideals and erode the concept of checks and balances as the power of the executive will be pushed too much.*

Response: The Federalist Papers required in Strand 2 are mandated by Utah Code 53E-4-204 and are therefore non-negotiable. The writing team acknowledges that these texts are challenging for many high school readers. No paper is expected to be read in full -- teachers should select excerpts appropriate to the depth of each standard. The writing team notes the concern about executive power. Strand 2 requires both Federalist and Anti-Federalist papers -- Brutus 1 specifically represents the Anti-Federalist critique of concentrated federal power. Federalist No. 70 (in Strand 3) addresses executive power and is studied alongside other sources that examine checks on executive authority. The course is designed to present these competing arguments, not to endorse any single Federalist position.

#46 Std General

Comment: *Overall, the standards are NOT WRITTEN AT A 12th-grade level -- these are university-level classes. If we want an average 12th grader to pass this course, it needs to be adjusted rigor-wise. The standards are also too long and very wordy.*

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Response: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#47 Std 2.1

Comment: 2.1 -- *just examine? What about identify and explain? Describe?*

Response: This is a substantive and well-grounded standards-writing observation. The writing team acknowledges that 'examine' appears frequently throughout Strand 2 and agrees that greater specificity in action verbs can strengthen the clarity of expected student performance. We will review Strand 2 standards for opportunities to replace 'examine' with more precise verbs -- such as 'analyze,' 'compare,' 'evaluate,' or 'construct a claim' -- where doing so increases clarity without constraining teacher flexibility.

#48 Std 2.2

Comment: 2.2 -- *so wordy. What about this: 'Identify the fatal flaws of the Articles of Confederation and explain why they forced the Founders to create a more powerful national government.'*

Response: This is a substantive and well-grounded standards-writing observation. The writing team will review Standard 2.2 for opportunities to streamline its language while preserving the full scope of expected student understanding, including both the strengths and the deficiencies of the Articles.

#49 Std 2.3

Comment: 2.3 -- *so what? What skill do the students need?*

Response: This is a substantive and well-grounded standards-writing observation. The writing team acknowledges that 'examine' appears frequently throughout Strand 2 and

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agrees that greater specificity in action verbs can strengthen the clarity of expected student performance. We will review Strand 2 standards for opportunities to replace 'examine' with more precise verbs -- such as 'analyze,' 'compare,' 'evaluate,' or 'construct a claim' -- where doing so increases clarity without constraining teacher flexibility.

#50 Std 2.4

Comment: 2.4 -- *this seems like a list of concepts kids need to know, not how to be engaged in civic thinking.*

Response: Standard 2.4 is primarily a content standard identifying the major debates of the Constitutional Convention. The writing team will consider whether adding an analytical skills component -- for example, asking students to evaluate how well the Convention's solutions addressed the specific problems it faced -- would better integrate civic thinking with content knowledge. Standard 2.7 provides the primary applied civic skills component for the entire strand.

#51 Std 2.5

Comment: 2.5 -- *Missing the big picture: The Bill of Rights! Students can do SO MUCH with this -- they should be doing a deeper dive. Analyze the clash between Federalist No. 10 and Brutus 1 to understand the debate over federal power and why the Bill of Rights was essential for the Constitution's success. Add how it applies to them!*

Response: The Bill of Rights is already explicitly required in Standard 2.5, which names it as one of the core arguments examined: 'the need for a Bill of Rights.' The clash between Federalist No. 10 and Brutus 1 over the proper extent of a republic is also explicitly required. The writing team notes the suggestion to strengthen the connection between the founding ratification debates and students' own rights and civic lives. Instructional resource materials will include suggested activities that help students apply the Bill of Rights to contemporary situations.

#52 Std 2.6

Comment: 2.6 -- *This is just the theory behind Federalism -- this needs to be more than just THEORY! How does this apply to them?*

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Response: Standard 2.6 asks students to examine the principles and practice of federalism -- the word 'practice' is intentionally included to signal that students should engage with how federalism operates in practice, not just in theory. Teachers may suggest activities connecting federalism to students' daily lives -- for example, examining which services are provided by national, state, and local governments.

#53 Std 2.7

Comment: 2.7 -- *This is such a cop out! This should just be embedded in each standard. Don't just tag it in the end.*

Response: Standard 2.7 is intentionally placed as a capstone performance standard for Strand 2 -- it asks students to synthesize the entire strand's content and apply it in a live civic discourse activity. This is not a repetition of the other standards but a culminating demonstration that what students have studied -- the compromises and civil discourse of the Constitutional Convention -- is something they can practice themselves. Embedding this in every standard would distribute the civic skills work across the strand and lose the synthesis effect.

#54 Std General

Comment: *Seven standards are too many.*

Response: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#55 Std General

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Comment: *Most of this strand feels more like a history class than a government class. More attention should be paid to the arguments for the need of a constitution, and less time on the history of different types of political organizations in the past.*

Response: The writing team designed Strand 2 to serve a constitutional government course, not a history course. The historical content in Standards 2.1 through 2.4 is included because understanding why the Founders made specific constitutional choices requires understanding the political circumstances and competing proposals they were responding to. Standard 2.7 explicitly grounds this historical study in active civic skills -- civil discourse, argumentation, persuasion, and compromise -- connecting the founding debates directly to students' own civic practice. Strands 3 through 5 focus increasingly on the Constitution's structure, application, and students' civic participation today.

#56 Std General

Comment: *The current draft of Standards 2.1 through 2.7 provides a functional chronological framework, but it requires strategic refinement to foster critical thinking skills necessary for modern citizenship. By framing the founding primarily as a series of resolved 'deficiencies' and 'debates' among a small group of architects, the standards inadvertently present the Constitution as a finished product rather than a living, contested experiment.*

Response: The writing team has grounded the language of these standards in the historical record and the primary sources required by Utah Code 53E-4-205.2. Strand 3 explicitly examines the Constitution's amendment process and ongoing interpretation, and Standard 2.7 asks students to engage with the founding debates as something they themselves can practice -- framing civic discourse as an ongoing activity, not a completed historical event.

#57 Std General

Comment: *Strand 2 is very good and is already a point of emphasis in current government classes. Some info on Shays' Rebellion would be helpful as well as some primary sources from founders who were expressing alarm about the state of affairs in the 1780s.*

Response: Thank you for this affirming feedback. Shays' Rebellion and the founders' correspondence from the 1780s expressing alarm about the state of the Confederation --

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including Madison's letters and Washington's correspondence with Hamilton -- are excellent supplemental sources for Standards 2.2 and 2.3. These will be noted for instructional resource development as strongly recommended contextual materials.

#58 Std General

Comment: *Too subjective and seems to be more of a history class than government and its functions.*

Response: The writing team designed Strand 2 to serve a constitutional government course, not a history course. The historical content in Standards 2.1 through 2.4 is included because understanding why the Founders made specific constitutional choices requires understanding the political circumstances and competing proposals they were responding to. Standard 2.7 explicitly grounds this historical study in active civic skills -- civil discourse, argumentation, persuasion, and compromise -- connecting the founding debates directly to students' own civic practice. Strands 3 through 5 focus increasingly on the Constitution's structure, application, and students' civic participation today.

#59 Std General

Comment: *Again, too subjective and seems focused on the history of the constitution rather than the government and its functions today.*

Response: The writing team designed Strand 2 to serve a constitutional government course, not a history course. The historical content in Standards 2.1 through 2.4 is included because understanding why the Founders made specific constitutional choices requires understanding the political circumstances and competing proposals they were responding to. Standard 2.7 explicitly grounds this historical study in active civic skills -- civil discourse, argumentation, persuasion, and compromise -- connecting the founding debates directly to students' own civic practice. Strands 3 through 5 focus increasingly on the Constitution's structure, application, and students' civic participation today. Strands 3 through 5 focus increasingly on the Constitution's institutional structure, how it functions today, and students' active civic participation. Strand 2 provides the historical founding context that makes constitutional structure meaningful.

#60 Std General

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Comment: *I think it is helpful to examine the precedents set by George Washington. This makes learning about the Constitution and the Executive more personal for students and helps them understand that the development of the Executive could have looked very different under a different leader.*

Response: George Washington's establishment of executive precedents -- including the two-term norm, the Cabinet, the use of the veto, and the principle of civilian executive authority -- is excellent applied content for Standard 2.4's examination of the power and election of the executive branch and for Strand 3's examination of the executive branch. This will be noted for instructional resource development as strongly recommended supplemental content for teachers teaching both Standards 2.4 and 3.5.

#61 Std 2.1

Comment: *Primary source documents to be included are the Mayflower Compact, Magna Carta, and the English Bill of Rights. The Constitution needs to be its own standard as it was a new government proposed in 1787. If you want to speak to federalism, you need to establish the framework that made it possible in the first place.*

Response: The Mayflower Compact is a required primary source in Strand 1. The Magna Carta and English Bill of Rights will be noted in instructional resource materials as strongly recommended supplemental sources for Standard 2.1. The U.S. Constitution is the central required primary source for both Strand 2 and Strand 3, where it is examined in depth -- Standards 3.1 through 3.6 are organized around the Constitution's structural provisions. Federalism's foundational context is established in Standard 2.6 specifically.

#62 Std 2.6

Comment: *2.6 -- No mention of DeWitt, who countered Fed. 1. Brutus 1 covers the rest.*

Response: The writing team appreciates this specific suggestion. John DeWitt's Anti-Federalist essays are valuable supplemental sources for Standard 2.6's examination of federalism arguments. While Brutus 1 is the required Anti-Federalist text, John DeWitt's essays may be noted in instructional resource materials as recommended supplemental

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Anti-Federalist reading for teachers who wish to expand students' exposure to the Anti-Federalist perspective.

#63 Std 2.1

Comment: *Standard 2.1: Would the 'British Constitution' need to be clarified as to what it actually is? It is not a single written document, but instead a collection of long-standing practices and common law precedents. A teacher would need help with how this collection of laws demonstrates how people organized themselves similarly to the Iroquois confederation and state constitutions.*

Response: Standard 2.1 uses 'British Constitution' in the sense recognized in political science and comparative government -- referring to the uncoded constitutional tradition of Great Britain, which consists of landmark statutes (Magna Carta, Petition of Right, English Bill of Rights, Act of Settlement), common law precedents, and established constitutional conventions. Britain's uncoded constitutional tradition is directly relevant here because it was the constitutional inheritance of the American colonists and the framework against which they measured their own grievances. The writing team will consider adding a brief clarifying note to Standard 2.1 making clear that the 'British Constitution' refers to this uncoded tradition rather than a single written document, so that teachers and students are not confused.

#64 Std 2.5

Comment: *2.5 -- Brutus is a terribly difficult document for my AP Government students to understand. I can't imagine having mainstream government students tackle this document.*

Response: The Federalist Papers required in Strand 2 are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. The writing team acknowledges that these texts are challenging for many high school readers. No paper is expected to be read in full -- teachers should select excerpts appropriate to the depth of each standard. The writing team acknowledges that Brutus 1 is particularly challenging. Instructional resource materials will include carefully selected excerpts of Brutus 1 -- focusing on its core argument about the extent of federal power -- along with scaffolding strategies to make the text accessible to students reading below grade level.

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#65 Std 2.1, 2.2

Comment: *2.1 and 2.2 overlap with AP United States History from my understanding.*

Response: This course is not a repetition of prior coursework. It is a new, full-year course replacing the current Government course as mandated by Utah Code 53E-4-205.2. While some foundational content may overlap with prior courses, the depth of constitutional analysis, primary source engagement, and civic skills application represents a substantial expansion. Teachers may build on students' prior knowledge to accelerate into deeper analysis. Standards 2.1 and 2.2 approach pre-constitutional history specifically through the lens of constitutional government -- asking why the Founders made specific constitutional choices -- rather than as a comprehensive historical survey. This focus distinguishes these standards from the historical treatment students receive in US History courses.

#66 Std General

Comment: *Following up about my concerns about the first strand. If religion was an equal pillar of the United States Constitution and Declaration of Independence's founding of American principles, why isn't religion even mentioned in Strand 2? This makes it seem like it shouldn't be included where it is in Strand 1.*

Response: Strand 1 establishes all three founding intellectual traditions -- classical republican, natural rights, and colonial religious -- as the framework for understanding the American founding. Strand 2 then examines how those principles were implemented in the constitutional structure. The First Amendment's religious liberty and non-establishment provisions -- the constitutional outcome most directly connected to the colonial religious tradition -- are addressed in Standard 4.3. The strand structure is sequential: Strand 1 establishes the principles; Strand 2 examines how they were implemented constitutionally.

#67 Std General

Comment: *Highlight and underscore the crucial importance of Native American contributions.*

Response: The Iroquois Constitution is a required primary source in Strand 2 because it demonstrates that confederal principles of self-governance and distributed authority were

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practiced by Indigenous peoples on this continent prior to the American founding -- an important comparative context for Standard 2.1. No student is expected to read all 108 clauses of the Iroquois Constitution; teachers should select relevant excerpts illustrating confederal principles. Instructional resource materials will include suggested excerpts.

#68 Std General

Comment: *While historical context is needed when teaching about the Constitution, it does not warrant an entire strand. Especially since the bill directing this course does not mention students studying the Constitutional Convention. Instead, teachers can address these historical events as they examine the text of the Constitution.*

Response: The writing team designed Strand 2 to serve a constitutional government course, not a history course. The historical content in Standards 2.1 through 2.4 is included because understanding why the Founders made specific constitutional choices requires understanding the political circumstances and competing proposals they were responding to. Standard 2.7 explicitly grounds this historical study in active civic skills -- civil discourse, argumentation, persuasion, and compromise -- connecting the founding debates directly to students' own civic practice. Strands 3 through 5 focus increasingly on the Constitution's structure, application, and students' civic participation today.

#69 Std 2.7

Comment: *2.7 seems to be the only unique standard if we understand that students are already learning these lessons several other times in school. Teaching specific civic skills would be great. Can we be more specific about what skills we should teach in these standards?*

Response: Standard 2.7 is intentionally the most distinctive standard in Strand 2 -- it asks students to move from studying founding debates to practicing civil discourse themselves, using the Constitutional Convention as their model. The civic skills named -- formulating a sound argument, persuasion, and compromise -- are specific. Instructional resource materials will include concrete suggested activities to help teachers implement Standard 2.7.

#70 Std 2.5

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Comment: *Do we need the Brutus papers?*

Response: Because The *Federalist* essays and Anti-Federalist papers are required for the course, using the arguments from *Brutus* was selected by the writing committee. It is anticipated that teachers will often use excerpts of many of these resources.

#71 Std General

Comment: *Federalist 39 and 45 are not necessary for a high school level class, nor are they accessible to all students' literacy levels.*

Response: The Federalist Papers required in Strand 2 are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. The writing team acknowledges that these texts are challenging for many high school readers. No paper is expected to be read in full -- teachers should select excerpts appropriate to the depth of each standard.

#72 Std General

Comment: *Why are we discussing Iroquois Convention and British 'Constitution' (which does not exist) in this unit instead of the last unit? Would it not make more sense to discuss those at the same time as Standard 1.1?*

Response: Standard 2.1 examines these political traditions as constitutional precursors -- the question 'how did peoples organize themselves politically prior to 1787?' is a Strand 2 question specifically because it sets up the context for the Constitutional Convention (Standards 2.2-2.4) and the federal structure the Constitution created. The placement is deliberate. Standard 2.1 uses 'British Constitution' in the sense recognized in political science and comparative government -- referring to the uncoded constitutional tradition of Great Britain, which consists of landmark statutes (Magna Carta, Petition of Right, English Bill of Rights, Act of Settlement), common law precedents, and established constitutional conventions. Britain's uncoded constitutional tradition is directly relevant here because it was the constitutional inheritance of the American colonists and the framework against which they measured their own grievances. The Iroquois Constitution is a required primary source in Strand 2 because it demonstrates that confederal principles of self-governance and distributed authority were practiced by Indigenous peoples on this continent prior to the

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American founding -- an important comparative context for Standard 2.1. No student is expected to read all 108 clauses of the Iroquois Constitution; teachers should select relevant excerpts illustrating confederal principles. Instructional resource materials will include suggested excerpts.

#73 Std 2.7

Comment: *How is Standard 2.7 relevant to the division of power in the US? Lastly, why is this not named 'Federalism'?*

Response: Standard 2.7 is relevant to Strand 2 because it asks students to draw on the entire strand's content -- including the debates about the division of power between federal and state governments -- and apply it through practiced civil discourse, argumentation, and compromise. The Constitutional Convention is the historical model for students to emulate: delegates with sharply competing interests used civic skills to reach workable agreements. Standard 2.7 asks students to practice those same skills. The strand title 'Constitutional Government and Union' reflects the full scope of Strand 2, which covers more than federalism alone.

#74 Std General

Comment: *Standard 2 -- Franklin's Albany Plan of Union should also be included.*

Response: Franklin's Albany Plan of Union (1754) is an excellent supplemental source for Standard 2.2's examination of early confederal efforts and the challenges that preceded the Articles of Confederation. It demonstrates that debates about how to unite the colonies preceded the Revolution by more than two decades. This will be noted for instructional resource development as a recommended supplemental source for Standard 2.2.

#75 Std General

Comment: *Guiding Question: 'Which, if any of these questions and arguments are still PREVALENT (should read RELEVANT) in the United States today?'*

Response: Thank you for this specific correction. The guiding question will be revised.

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#76 Std 2.1

Comment: 2.1 -- the 'British Constitution' should read 'British Common Law.'

Response: Standard 2.1 uses 'British Constitution' in the sense recognized in political science and comparative government -- referring to the uncoded constitutional tradition of Great Britain, which consists of landmark statutes (Magna Carta, Petition of Right, English Bill of Rights, Act of Settlement), common law precedents, and established constitutional conventions. Britain's uncoded constitutional tradition is directly relevant here because it was the constitutional inheritance of the American colonists and the framework against which they measured their own grievances. The writing team will consider adding a brief clarifying note to Standard 2.1 making clear that the 'British Constitution' refers to this uncoded tradition rather than a single written document, so that teachers and students are not confused.

#77 Std 2.3 | Change | Concepts or Ideas

Comment: Since one of the stated purposes of the course is to teach students to compromise, it seems fitting that one of the standards (maybe 2.3 or a separate strand) include a focus on the compromises that saved the Constitution.

Response: Standard 2.1 addresses these compromises. **Standard 2.1:** Students will analyze the processes and principal debates at the Constitutional Convention that shaped the final Constitution, including the insufficiencies of the Articles of Confederation, problems of representation (the Virginia and New Jersey plans), executive power and election, state versus federal authority, and the question of slavery.

#78 Std General

Comment: The Federalist papers are important but very dense. The emphasis on the Federalist papers in Strand 2 along with Strand 3 is going to make for very difficult reading for diverse students. I recommend cutting down on some of the Federalist papers. I appreciate the inclusion of the Iroquois Constitution. I love 2.7 because of the emphasis on civic discourse.

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Response: The Federalist Papers required in Strand 2 are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. The writing team acknowledges that these texts are challenging for many high school readers. No paper is expected to be read in full -- teachers should select excerpts appropriate to the depth of each standard. The writing team appreciates the affirming feedback on the inclusion of the Iroquois Constitution and on Standard 2.7's emphasis on civic discourse. Instructional resource materials will include carefully selected excerpts and tiered scaffolding for each of the required Federalist Papers to support students reading at varying literacy levels.

#79 Std General

Comment: *Strand 2 should include a section about early state constitutions as these also helped to guide the process.*

Response: Early state constitutions are explicitly included in Standard 2.1, which asks students to examine various ways peoples organized themselves politically prior to 1787, 'including the Iroquois Constitution, the British Constitution, and the early state constitutions.'

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Strand 3: Structure of American Government

#1 Std General

Comment: *This section is ok but is really big and should be equal in size to the combined Strand 1 and 2. Strands 1 and 2 are easily done in Q1 and this probably spans Q2-3. Probably it should be broken into smaller parts to make scheduling easier.*

RESPONSE: The writing team will also review Strand 3 for any opportunities to streamline or consolidate where standards overlap without losing essential content. The writing team notes the suggestion that Strand 3 might benefit from being broken into smaller sub-units for scheduling purposes.

#2 Std General

Comment: *I suggest adding Montesquieu's 'The Spirit of Laws' as a required text/topic in this unit, since its ideas heavily influenced the United States' three-branch system of government.*

RESPONSE: Montesquieu's 'The Spirit of Laws' -- particularly its argument for the separation of legislative, executive, and judicial powers -- is the intellectual foundation for the three-branch system examined throughout Strand 3. While it is not a required text under Utah Code 53E-4-205.2, it is one of the most important supplemental sources for this strand. The writing team will note it prominently in instructional resource materials as a strongly recommended supplemental reading for Standard 3.1

#3 Std General

Comment: *There are way too many standards in this section. This looks more like a university course. For example 3.4 should say something like: Students will be able to explain the purpose of the executive branch and the powers and limits of the president. The standards that are listed in this strand would take an entire semester to teach. They need to be cut down.*

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RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. The writing team will also review Strand 3 for any opportunities to streamline or consolidate where standards overlap without losing essential content. The student-friendly rewrite suggested for Standard 3.4 is appreciated and will be noted for instructional resource development, where student-accessible language for each standard will be provided.

#4 Std General

Comment: *A standard should define the destination of the learning rather than the directions for the lesson, ensuring that students are measured by what they can demonstrate rather than just what they have experienced.*

RESPONSE: . The writing team acknowledges this standards-writing principle: standards should define what students demonstrate, not what they experience. We will review Strand 3 standards with this principle in mind, looking for opportunities to shift the language from process ('examine') to outcome ('analyze and explain,' 'evaluate and defend,' 'compare and construct a claim').

#5 Std 3.8

Comment: *3.8 -- it is odd to only give one SCOTUS case to examine but say look at others. Why is this one more important than any of the others? AP Government has a set of required cases that need to be read and it would be good to add some into this part of the class.*

RESPONSE: Lincoln's critique of the Dred Scott decision is a required text under Utah Code 53E-4-205.2 and is studied in Standard 3.8. The writing team notes that this source is significant not primarily as a case study in judicial error but because Lincoln's critique represents one of the most powerful arguments in American history about the proper relationship between the branches -- specifically, whether judicial decisions bind the other branches absolutely or whether elected officials retain the responsibility to interpret the Constitution for themselves. This is directly relevant to Standard 3.8's examination of the role of the judiciary and to Standard 3.6's study of judicial independence. The writing team acknowledges the concern that singling out Dred Scott without naming other landmark cases may seem arbitrary. The AP Government required cases represent one benchmark the writing team considered. Instructional resource materials will provide a recommended list of

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landmark Supreme Court cases organized by strand and standard, giving teachers a clear set of cases to use within Standard 3.8's requirement to examine 'several landmark Supreme Court decisions.'

#6 Std General

Comment: *Isn't there anything written by women or other groups about how the structure of the government affected them? I think you should compare governments in different countries, or how democracy works in other countries.*

RESPONSE: Women's voices and the experiences of excluded groups in relation to constitutional structure are addressed in Strand 4, which includes the Seneca Falls Declaration of Sentiments, Utah women's suffrage materials, and Frederick Douglass's critique of constitutional exclusions. Comparative government -- examining how other constitutional democracies organize their branches -- is not within the scope of this course as mandated by Utah Code 53E-4-204, but teachers may incorporate comparative examples at their discretion. This will be noted for instructional resource development. Standards describe what students should know and be able to do -- they do not prescribe specific instructional activities, lesson formats, or supplemental materials.

#7 Std 3.6, 3.7

Comment: *Marbury v. Madison (1803) and the explicit establishment of judicial review. Standard 3.6 references Federalist No. 78 and Brutus 15 for judicial independence and interpretive power, and 3.7 requires examining how the Supreme Court interprets texts. However, the actual landmark case that established judicial review is never required.*

RESPONSE: The writing team takes seriously the observation that Marbury v. Madison (1803) is not explicitly named in these standards despite being the foundational precedent establishing judicial review. Standard 3.6 requires students to examine how Article III and the Supremacy Clause 'empower the judiciary to interpret the U.S. Constitution and laws,' and Standard 3.7 asks students to examine how the Supreme Court makes decisions and interprets texts -- both of which directly engage judicial review as a concept. Marbury v. Madison would be great for teachers to include in their classroom learning.

#8 Std 3.2

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Comment: *The Seventeenth Amendment (direct election of Senators). Standard 3.2 covers the original bicameral design and the Great Compromise, but there is no mention of the 17th Amendment (1913), which fundamentally altered the Senate by shifting selection from state legislatures to popular vote. This change dramatically affected federalism, representation, and the original constitutional balance.*

RESPONSE: This is a substantive and well-grounded observation. The 17th Amendment's shift from legislative appointment to popular election of senators fundamentally altered the original constitutional design of the Senate and its relationship to state governments -- a change directly relevant to Standard 3.2's examination of the bicameral structure and to Standard 2.6's examination of federalism. The 17th Amendment will be included in suggestions for additional readings in curricular material.

#9 Std 3.3

Comment: *Detailed constitutional impeachment process and its role as a check. 'Impeachment of government officials' is listed as a legislative function (3.3), but the standards do not require close examination of the two-step constitutional process (House impeachment, Senate trial with two-thirds vote), the text in Article I Sections 2-3 and Article II Section 4, or historical examples.*

RESPONSE: Standard 3.3 names 'impeachment of government officials' as one of the major legislative functions students must examine.

#10 Std 3.5

Comment: *War powers and the ongoing separation-of-powers debate over foreign affairs. Commander-in-chief power is covered (3.5), but there is no requirement to examine Congress's power to declare war (Article I), the president's power to make treaties and receive ambassadors, or the constitutional tension that has existed since the founding. The War Powers Resolution (1973) is the classic real-world illustration of legislative vs. executive tension.*

RESPONSE: Standard 3.5 requires students to examine 'major developments and controversies involving presidential powers (including the veto power, the appointment

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power, the commander-in-chief power, and executive orders and agreements).' The war powers tension -- between Congress's constitutional authority to declare war and the president's role as commander-in-chief -- is one of the most significant of these controversies and is directly within scope of this standard. The War Powers Resolution (1973) will be noted in instructional resource materials as a strongly recommended example for Standard 3.5

#11 Std General | Delete | *Concepts or Ideas*

Comment: *12 standards seem EXCESSIVE. Can any of these standards be joined together? Are all of these standards ESSENTIAL?*

RESPONSE: The writing team will also review Strand 3 for any opportunities to streamline or consolidate where standards overlap without losing essential content.

#12 Std General

Comment: *This is too many standards to be able to effectively teach in the year-long course provided. Each standard will take a minimum of 2 class periods, and with the addition of primary source documents, students will not be able to learn and apply every single one of these standards in a school year.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team will also review Strand 3 for any opportunities to streamline or consolidate where standards overlap without losing essential content.

#13 Std 3.8

Comment: *With 3.8, I would love to see other court cases. Brown v. the Board, the Loving case, etc.*

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RESPONSE: Brown v. Board of Education and Loving v. Virginia are landmark cases most directly connected to Strand 4's examination of civil rights and the expansion of constitutional protections -- they are strongly recommended for that strand. Within Standard 3.8's examination of 'several landmark Supreme Court decisions,' teachers may appropriately include them to illustrate how the judiciary interprets and applies the Constitution across different eras. Instructional resource materials will provide a recommended case list organized by strand and standard.

#14 Std General

Comment: *I'm not seeing much inclusion of modern application of the Constitution. This isn't a history course, and the beautiful part of a government/citizenship class is that it is meant to feel immediately applicable to today. I also worry that the primary source documents are too hard for many students.*

RESPONSE: The writing team designed Strand 3 to balance the foundational constitutional framework with connections to contemporary government. Standard 3.3 explicitly addresses 'developments and controversies involving federal legislative structures, powers, and practices' -- language that requires teachers to connect the constitutional framework to real-world examples. Standard 3.5 similarly requires examination of 'major developments and controversies involving presidential powers.' The guiding questions for Strand 3 include 'What are some examples of checks and balances and the separation of powers at work in current events and issues?' explicitly inviting contemporary application. Standards 3.9 through 3.12 connect constitutional structure to civic practice. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate. The writing team acknowledges the accessibility concern. Instructional resource materials will include grade-appropriate scaffolding, suggested excerpts, and differentiation strategies to support teachers in making primary source texts accessible to diverse learners.

#15 Std 3.5

Comment: *Standard 3.5 -- Are there specific developments and contributions teachers ought to examine with the students? We're not all constitutional scholars (yet)!*

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RESPONSE: Standard 3.5 gives teachers flexibility in selecting which specific 'developments and controversies' to examine -- this is intentional, as the list of significant executive branch developments is extensive. Instructional resource materials will provide a recommended list of specific examples for Standard 3.5, organized by presidential power type: for example, significant uses of the veto, contested appointments, commander-in-chief controversies, and landmark executive orders and agreements. This will give teachers who are not constitutional specialists a clear starting point.

#16 Std 3.7

Comment: *Standard 3.7 -- It may be useful to include specific vocabulary terms that you'd like us to use (like judicial review in this case) throughout all the strands. Academic vocabulary is very important!*

RESPONSE: This is a valuable and specific suggestion. 'Judicial review' is the central concept of Standard 3.7 and should be named explicitly. The writing team will consider adding 'judicial review' to Standard 3.7's language. A glossary of essential vocabulary terms -- including judicial review, precedent, stare decisis, enumerated powers, and other key constitutional terms -- will be developed as part of instructional resource materials for the course

#17 Std 3.8

Comment: *Standard 3.8 -- Which landmark cases? Modern or less-modern? We could spend a whole entire school year on all the Supreme Court cases experts feel like are landmark.*

RESPONSE: Standard 3.8's reference to 'several landmark Supreme Court decisions' is intentionally flexible -- the writing team did not want to prescribe a single fixed list of cases, given the breadth of significant decisions across all areas of constitutional law. Instructional resource materials will provide a recommended list of landmark cases organized by constitutional topic (separation of powers, civil liberties, federalism, civil rights), giving teachers a clear menu from which to select cases appropriate to their instructional focus and students' needs.

#18 Std General

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Comment: *Again -- way too many Federalist papers! Fed 51, 70 and maybe 78. We have to teach students how the government WORKS now as well, not just how the founders may have argued it be set up. You can't expect students to understand how to compare one branch to the other without studying each branch in depth -- there is not time to cover all the Federalist Papers AND the branches!*

RESPONSE: The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be studied as excerpts appropriate to the course level -- no source is expected to be read in its entirety. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing.

#19 Std General

Comment: *There is something very important missing from Strand 3. There needs to be a specific standard that teaches about the enumerated powers in Article 1 Section 8 of the Constitution. The enumerated powers are the heart of the document. This section was how the founders were to keep the federal government from growing.*

RESPONSE: Enumerated powers are explicitly addressed in Standard 3.2, which requires students to examine 'how Congress's enumerated powers both empower and limit Congress,' and in Standard 3.4, which requires students to examine 'how the president's enumerated powers both empower and limit the presidency.' The principle that the federal government's powers are limited to those enumerated in the Constitution is foundational to both standards and is directly examined through the constitutional text and the Federalist Papers. Article I, Section 8 -- which enumerates Congress's specific powers -- is the primary text for Standard 3.2's examination of how Congress's enumerated powers both empower and limit Congress.

#20 Std General

Comment: *There are too many standards for teachers to be effective.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current

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one-semester Government course, as mandated by Utah Code 53E-4-205.2.. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team will also review Strand 3 for any opportunities to streamline or consolidate where standards overlap without losing essential content.

#21 Std General

Comment: *Same applies here in Strand 3 where there are too many standards that simply have the students 'examine' the text of primary sources. My students benefit more from hands-on kind of activities or lessons.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team will also review Strand 3 for any opportunities to streamline or consolidate where standards overlap without losing essential content. Hands-on activities and lesson plans will be left to the teacher's discretion.

#22 Std 3.3, 3.5, General

Comment: *Strand 3 could better connect to how government works today. In Standards 3.3 and 3.5, adding clearer focus on current issues and modern examples would help students understand real-world application, not just theory.*

RESPONSE: The writing team designed Strand 3 to balance the foundational constitutional framework with connections to contemporary government. Standard 3.3 explicitly addresses 'developments and controversies involving federal legislative structures, powers, and practices' -- language that requires teachers to connect the constitutional framework to real-world examples. Standard 3.5 similarly requires examination of 'major developments and controversies involving presidential powers.' The guiding questions for Strand 3 include 'What are some examples of checks and balances and the separation of powers at work in current events and issues?' explicitly inviting contemporary application. Standards 3.9 through 3.12 connect constitutional structure to civic practice.

#23 Std General

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Comment: *In Strand 3, please make sure the enumerated powers are taught explicitly and specifically. It must be understood that the point was not to grow the federal government, but that its role is to protect the states' sovereign right.*

RESPONSE: Enumerated powers are explicitly addressed in Standard 3.2, which requires students to examine 'how Congress's enumerated powers both empower and limit Congress,' and in Standard 3.4, which requires students to examine 'how the president's enumerated powers both empower and limit the presidency.' The principle that the federal government's powers are limited to those enumerated in the Constitution is foundational to both standards and is directly examined through the constitutional text and the Federalist Papers. The limitation of federal power to enumerated authorities -- and the reservation of remaining powers to the states and the people under the Tenth Amendment -- is foundational to Standards 3.2, 3.4, and Standard 2.6's study of federalism. Instructional resource materials will give these provisions prominent attention.

#24 Std 3.8

Comment: *Standard 3.8 seems to take a good standard and shoehorn the document into it. There are many more relevant and more modern cases that can be compared to Dred Scott. This can be added without mandating which cases be used. If the value of this are the principles of Lincoln's critique, the same can be found in the critiques of much more relevant, modern cases.*

RESPONSE: Lincoln's critique of the Dred Scott decision is a required text under Utah Code 53E-4-205.2 and is studied in Standard 3.8. The writing team notes that this source is significant not primarily as a case study in judicial error but because Lincoln's critique represents one of the most powerful arguments in American history about the proper relationship between the branches -- specifically, whether judicial decisions bind the other branches absolutely or whether elected officials retain the responsibility to interpret the Constitution for themselves. This is directly relevant to Standard 3.8's examination of the role of the judiciary and to Standard 3.6's study of judicial independence. The writing team notes the suggestion that Lincoln's critique could be taught alongside more recent cases illustrating similar questions about judicial authority and constitutional interpretation, rather than exclusively in the context of Dred Scott. Instructional resource materials will address how teachers can use Lincoln's critique as a framework for examining the judiciary's role across multiple historical and contemporary cases.

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#25 Std General

Comment: *The standards neglect to mention the informal connections between the branches and within the branches (caucuses, logrolling, seniority, etc.). While not found in the Constitution, they are how the sausage gets made.*

RESPONSE: Standard 3.3 requires students to examine 'developments (including political parties and committees)' within the legislative branch -- language that encompasses informal congressional practices such as seniority systems, caucuses, and legislative deal-making. Standards describe what students should know and be able to do -- they do not prescribe specific instructional activities, lesson formats, or supplemental materials beyond what is required by Utah Code 53E-4-204. Curricular decisions, including the selection of additional texts and classroom activities, remain with local education agencies.

PUBLIC RESPONSE: Standard 3.3 requires students to examine 'developments (including political parties and committees)' within the legislative branch -- language that encompasses informal congressional practices such as seniority systems, caucuses, and legislative deal-making. The writing team will ensure that instructional resource materials explicitly address informal legislative practices as important context for understanding how Congress actually functions. Standards describe what students should know and be able to do -- they do not prescribe specific instructional activities, lesson formats, or supplemental materials beyond what is required by HB 381. Suggestions for additional readings, specific activities, or supplemental resources will be noted and may be incorporated into instructional resource materials developed to support this course. Curricular decisions, including the selection of additional texts and classroom activities, remain with local education agencies.

#26 Std General, 3.3, 3.9 | Delete | Concepts or Ideas

Comment: *Again you have TOO MANY STANDARDS. There are far more standards here than any other course in social studies. Most courses max out at 6 or so standards per strand. I'm not understanding the need for Strand 3. Is this not essentially Strand 2? There is a huge jump to including basic documents then suddenly Dred Scott. Also confused that Marbury v. Madison was not directly addressed in these standards.*

Recommended Action: S3_SCOPE and B canonicals apply. S3_MARBURY applies. Clarify relationship between Strands 2 and 3.

EDITED RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The writing

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team will also review Strand 3 for any opportunities to streamline or consolidate where standards overlap without losing essential content. Standard 3.6 requires students to examine how Article III and the Supremacy Clause 'empower the judiciary to interpret the U.S. Constitution and laws,' and Standard 3.7 asks students to examine how the Supreme Court makes decisions and interprets texts -- both of which directly engage judicial review as a concept. The writing team will consider whether Marbury v. Madison should be named explicitly in Standard 3.6 or 3.7, as it is the most direct primary source illustration of the principles those standards examine.

#27 Std General

Comment: *What do you mean by 'examined'? That is a broad statement.*

This is a substantive and well-grounded standards-writing observation. The writing team acknowledges that 'examine' appears frequently throughout these standards and agrees that greater specificity in action verbs can strengthen the clarity of expected student performance. We will review Strand 3 standards for opportunities to replace 'examine' with more precise verbs -- such as 'analyze,' 'explain,' 'evaluate,' or 'compare' -- where doing so increases clarity without constraining teacher flexibility.

#28 Std General, 3.4, 3.7, 3.8

Comment: *This is a HUGE unit. Required documents -- only need to read Fed 51, 70 and 78. The students don't need to read Lincoln's critique. Need to add Articles I, II and III to the question 'does the US Constitution make one branch...' Standard 3.2 -- get rid of the 2 Federalist papers and use 17th Amendment instead. 3.4 -- get rid of Fed 68. 3.7 -- which court opinions? 3.8 -- what do you consider to be landmark cases? Don't need to study Lincoln's cri...*

RESPONSE: The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be studied as excerpts appropriate to the course level -- no source is expected to be read in its entirety. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing. Additional suggested readings may be developed in instructional resource materials. Lincoln's critique of the Dred Scott decision is a required text under Utah Code 53E-4-205.2 and is studied in Standard 3.8. The writing team notes that this source is

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significant not primarily as a case study in judicial error but because Lincoln's critique represents one of the most powerful arguments in American history about the proper relationship between the branches -- specifically, whether judicial decisions bind the other branches absolutely or whether elected officials retain the responsibility to interpret the Constitution for themselves. This is directly relevant to Standard 3.8's examination of the role of the judiciary and to Standard 3.6's study of judicial independence. The writing team notes the suggestion to add Articles I, II, and III explicitly to the guiding question about branch strength -- this is a useful clarification and will be reviewed. The U.S. Constitution is already a required primary source document for Strand 3. Regarding landmark cases, instructional resource materials will provide a recommended case list to clarify Standard 3.7's expectations.

#29 Std General | Change | *Concepts or Ideas*

Comment: *Teach that the judiciary interprets the law but must never legislate from the bench or be activist judges.*

RESPONSE: The debate between judicial restraint and judicial activism -- including the question of whether the Court should defer to the elected branches or interpret the Constitution more expansively -- is one of the central controversies examined in Standards 3.6 through 3.8. Standard 3.7 asks students to examine how the Supreme Court 'interprets texts and writes their opinions,' which includes examining different approaches to constitutional interpretation. The course presents these competing perspectives for students to analyze rather than endorsing any single interpretive philosophy.

#30 Std General

Comment: *This strand represents the greatest concern in terms of scope and feasibility. I teach this course on a trimester schedule, with each trimester lasting approximately 12 weeks. Even across two trimesters, there is not enough time to cover all of the expectations in this strand at the level of depth that is being asked.*

RESPONSE: The writing team acknowledges that twelve standards is the largest strand in the course and that the volume is a legitimate concern. The writing team will review Strand

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3 for any opportunities to streamline or consolidate where standards overlap without losing essential content.

#31 Std 3.5

Comment: *For Standard 3.5, it does not make sense why political parties would be in the same standard as the executive power and bureaucracy but separate from elections.*

RESPONSE: Standard 3.5's inclusion of political parties alongside presidential powers and the federal bureaucracy reflects the historical development of the executive branch -- political parties emerged in the Washington administration and immediately shaped how presidential power was exercised. Washington's Farewell Address, required in Standard 3.12, directly warns against the dangers of political parties in precisely this executive context. The writing team notes this structural concern and will review whether the placement of political parties in Standard 3.5 is the most pedagogically clear location, or whether it could be better integrated with Standard 3.3's treatment of political parties in the legislative context.

#32 Std General

Comment: *I appreciate that Washington's Farewell Address will be studied. His inaugural address is equally worthy of study.*

RESPONSE: Washington's First Inaugural Address (1789) is an excellent supplemental primary source for Strand 3 -- particularly for Standard 3.12's examination of constitutional fidelity and civic leadership. It would pair naturally with the Farewell Address to show the arc of Washington's constitutional stewardship.

#33 Std General

Comment: *I would just ask that the guiding question about current events or issues be removed for reasons already explained.*

RESPONSE: The guiding questions for Strand 3 -- including 'What are some examples of checks and balances and the separation of powers at work in current events and issues?' -- are intentionally open-ended suggestions for classroom discussion, not required assessment

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items. Teachers have full discretion in which guiding questions they use and how. This question specifically invites teachers to connect the constitutional framework to contemporary events, which the writing team believes is essential to civic relevance.

#34 Std General

Comment: *Cut Centinel 1, Brutus 15, Fed 62 and 70. Cut Lincoln's critique of the Dred Scott decision. Cut Washington's Farewell Address.*

RESPONSE: The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be studied as excerpts appropriate to the course level -- no source is expected to be read in its entirety. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing.

#35 Std 3.1

Comment: *3.1 -- cut Centinel 1.*

RESPONSE: The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be studied as excerpts appropriate to the course level -- no source is expected to be read in its entirety. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing.

#36 Std 3.2

Comment: *3.2 -- cut Federalist 62.*

RESPONSEThe specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be studied as excerpts appropriate to the course level -- no source is expected to be read in its entirety. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing.

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#37 Std 3.3

Comment: 3.3 -- *have students examine how this works in practice. This should be the main focus of the class.*

RESPONSE: The writing team designed Strand 3 to balance the foundational constitutional framework with connections to contemporary government. Standard 3.3 explicitly addresses 'developments and controversies involving federal legislative structures, powers, and practices' -- language that requires teachers to connect the constitutional framework to real-world examples. Standard 3.5 similarly requires examination of 'major developments and controversies involving presidential powers.' The guiding questions for Strand 3 include 'What are some examples of checks and balances and the separation of powers at work in current events and issues?' explicitly inviting contemporary application. Standards 3.9 through 3.12 connect constitutional structure to civic practice.

#38 Std 3.4

Comment: 3.4 -- *cut Federalist 70.*

RESPONSE: Federalist No. 70 -- which argues for a single, energetic executive as essential to republican government -- is required by Utah Code 53E-4-205.2 and is directly relevant to Standard 3.4's examination of the executive branch's structure and the president's enumerated powers. It is among the most significant primary sources for understanding the Founders' design of the presidency.

#39 Std 3.6

Comment: 3.6 -- *cut Brutus 15.*

RESPONSE: Brutus 15 is required by Utah Code 53E-4-204 and is studied in Standard 3.6 as the Anti-Federalist counterpart to Federalist No. 78's argument for judicial independence. Brutus 15 directly challenges Hamilton's claim that an independent, life-tenured judiciary is safe for a republic -- making the pairing of these two texts essential for understanding the founding debate over judicial power.

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#40 Std 3.7

Comment: 3.7 -- assign SCOTUS cases to examine, i.e., *Marbury v. Madison*, *McCulloch v. Maryland*.

RESPONSE: The writing team takes seriously the observation that *Marbury v. Madison* (1803) is not explicitly named in these standards despite being the foundational precedent establishing judicial review. Standard 3.6 requires students to examine how Article III and the Supremacy Clause 'empower the judiciary to interpret the U.S. Constitution and laws,' and Standard 3.7 asks students to examine how the Supreme Court makes decisions and interprets texts -- both of which directly engage judicial review as a concept. The writing team will consider whether *Marbury v. Madison* should be named explicitly in Standard 3.6 or 3.7, as it is the most direct primary source illustration of the principles those standards examine. *McCulloch v. Maryland* (1819) is another foundational case -- establishing the supremacy of federal law over state law and affirming the implied powers doctrine under the Necessary and Proper Clause -- that is directly relevant to Standards 3.2 and 3.6. Both *Marbury* and *McCulloch* will be noted in instructional resource materials as strongly recommended cases for Standard 3.7.

#41 Std 3.8

Comment: 3.8 -- can be cut or give us SCOTUS cases to read.

RESPONSE: Lincoln's critique of the *Dred Scott* decision is a required text under Utah Code 53E-4-205.2 and is studied in Standard 3.8. The writing team notes that this source is significant not primarily as a case study in judicial error but because Lincoln's critique represents one of the most powerful arguments in American history about the proper relationship between the branches -- specifically, whether judicial decisions bind the other branches absolutely or whether elected officials retain the responsibility to interpret the Constitution for themselves. This is directly relevant to Standard 3.8's examination of the role of the judiciary and to Standard 3.6's study of judicial independence. Standard 3.8 requires students to examine 'several landmark Supreme Court decisions' -- the writing team intentionally did not prescribe a specific fixed list beyond Lincoln's critique of *Dred Scott* to give teachers flexibility in selecting cases appropriate to their students and context.

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#42 Std 3.10

Comment: 3.10 -- cut out completely.

RESPONSE: Standard 3.10 asks students to examine how the principles of the Declaration of Independence are expressed in or relate to the U.S. Constitution, and to distinguish between writing a revolutionary document and writing a frame of government. This synthesis standard is important because it connects the foundational principles of Strand 1 (Declaration) to the constitutional structure of Strand 3 (Constitution) -- helping students understand that the Constitution is not simply a technical document but the implementation of the principles the Declaration articulates. The writing team will review whether Standard 3.10 can be more concisely written.

#43 Std 3.11

Comment: 3.11 seems like an assessment for the unit and not a standard.

RESPONSE: Standards 3.11 and 3.12 are intentionally structured as applied performance standards -- they ask students to synthesize the strand's content and demonstrate civic skills (persuasive argumentation in Standard 3.11, constitutional leadership and civic virtue in Standard 3.12) using the sources studied in the strand. They are not assessment items but standards that specify what students should be able to do with the content they have learned. Standard 3.12 in particular uses Washington's Farewell Address to ground the civic skills of constitutional fidelity, civic friendship, peaceful transfer of power, and citizenship in one of the course's most significant primary sources.

#44 Std 3.12

Comment: 3.12 -- can cut this or reword it to show how transfer of power has been completed in recent elections.

RESPONSE: Standards 3.11 and 3.12 are intentionally structured as applied performance standards -- they ask students to synthesize the strand's content and demonstrate civic skills (persuasive argumentation in Standard 3.11, constitutional leadership and civic virtue in Standard 3.12) using the sources studied in the strand. They are not assessment items but standards that specify what students should be able to do with the content they have

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learned. Standard 3.12 in particular uses Washington's Farewell Address to ground the civic skills of constitutional fidelity, civic friendship, peaceful transfer of power, and citizenship in one of the course's most significant primary sources. The suggestion to connect Standard 3.12's examination of the peaceful transfer of power to recent election history is valuable and will be noted for instructional resource materials. Teachers may use Washington's model alongside contemporary examples of presidential transitions to make this standard immediately relevant to students.

#45 Std General

Comment: *The content of this strand is a lot! You can study each branch by itself and putting them all in the same one makes it a long strand. There should be some specific Supreme Court cases here that impact Legislative Power, Executive Power and the Judicial Branch. I wonder if each branch should be its own strand.*

#46 Std General | Change | *Concepts or Ideas*

RESPONSE: Strand 3 addresses the structure of American government across all three branches -- a scope that reflects the central mandate of this course and of Utah Code 53E-4-205.2. The writing team acknowledges that twelve standards is the largest strand in the course and that the volume is a legitimate concern. Instructional resource materials will include pacing guidance to help teachers navigate Strand 3 efficiently, including suggestions for which standards can be integrated and which can be addressed in abbreviated form. The writing team will also review Strand 3 for any opportunities to streamline or consolidate where standards overlap without losing essential content. The writing team considered whether each branch should be its own strand and determined that grouping all three branches in Strand 3 -- with Strand 4 addressing the development of rights and Strand 5 addressing applied citizenship -- better reflects the course's overall structure and the requirements of Utah Code 53E-4-204.

Comment: *This is an entire semester of foundations of government documents. Students struggle with so many challenging old documents -- especially ML students and lower-level students. I know we can do some interesting things, but I feel like this is a lot for students to take in.*

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RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#47 Std General

Comment: *I don't love this: 'Which is the least dangerous branch to liberty and which is the most?'*

RESPONSE: This guiding question draws directly from Alexander Hamilton's language in Federalist No. 78, where he describes the judiciary as 'the least dangerous' branch because it controls 'neither sword nor purse.' It is intended to prompt students to engage critically with Hamilton's argument -- evaluating whether they agree and what evidence supports or challenges his claim. The writing team acknowledges that without this context, the question can seem to invite a subjective ranking rather than an analytical exercise grounded in the primary sources.

#48 Std General | Delete | Concepts or Ideas

Comment: *Way too many standards. Is this a college class? Feels like it.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#49 Std General

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Comment: *That is just too much to cover effectively.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#50 Std 3.5, 3.8

Comment: *Primary Concern: This strand appropriately addresses structure, but judicial/presidential controversies are framed somewhat narrowly. Instruction on executive and judicial powers should explicitly include modern debates over executive overreach, emergency powers, judicial activism/restraint, and institutional checks during democratic stress or constitutional crisis.*

RESPONSE: The writing team designed Strand 3 to balance the foundational constitutional framework with connections to contemporary government. Standard 3.3 explicitly addresses 'developments and controversies involving federal legislative structures, powers, and practices' -- language that requires teachers to connect the constitutional framework to real-world examples. Standard 3.5 similarly requires examination of 'major developments and controversies involving presidential powers.' The guiding questions for Strand 3 include 'What are some examples of checks and balances and the separation of powers at work in current events and issues?' explicitly inviting contemporary application. Standards 3.9 through 3.12 connect constitutional structure to civic practice. Standard 3.5's requirement to examine 'major developments and controversies involving presidential powers' and Standard 3.8's examination of 'controversies involving federal judicial structures and the role of the judiciary' specifically encompass the topics this commenter raises: executive emergency powers, the debate between judicial activism and restraint, and the functioning of institutional checks under constitutional stress.

#51 Std General

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Comment: *Once again, the Federalist papers are over-emphasized leading to issues with checks and balances and the ideology that the executive has more power than it really does. In addition, the role of political parties, as referenced in Washington's Farewell Address and by other presidents and through Marbury v. Madison, should be brought out and discussed. The role of the Electoral College and the founders' beliefs on who should and should not vote and...*

RESPONSE: The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be studied as excerpts appropriate to the course level -- no source is expected to be read in its entirety. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing. Washington's Farewell Address is a required primary source in Strand 3 (Standard 3.12) and directly addresses political parties. Political parties are also addressed in Standard 3.3 (legislative) and Standard 3.5 (executive). The Electoral College is examined in Standard 3.4's study of the presidential selection system. The founders' debates about suffrage and political participation are addressed in Strand 4. The writing team notes the concern about executive power overemphasis -- the Anti-Federalist papers (Centinel 1 and Brutus 15) specifically counter the Federalist arguments and are required reading precisely to provide that critical perspective.

#52 Std General

Comment: *Overall, the standards are NOT WRITTEN AT A 12th-grade level -- these are university-level classes. If we want an average 12th grader to pass this course, it needs to be adjusted rigor-wise. The standards are also too long and very wordy. The skills should encourage students to interact as active citizens in their community as much as possible.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

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#53 Std 3.1

Comment: 3.1 -- *Does a 12th grader really need to know Centinel 1? I don't even know it.*

RESPONSE: The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be studied as excerpts appropriate to the course level -- no source is expected to be read in its entirety. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing. Centinel 1 is studied in Standard 3.1 as the most direct Anti-Federalist challenge to the proposed system of separation of powers and checks and balances -- arguing that the proposed system was too complex and gave too much power to the federal government.

#54 Std 3.2

Comment: 3.2 -- *You will study Article I to understand how the House and Senate are designed to balance each other and how the Constitution defines the limits of congressional power. Simplify it! Then what is the skill?*

RESPONSE: The student-friendly rewrite suggested -- 'study Article I to understand how the House and Senate are designed to balance each other and how the Constitution defines the limits of congressional power' -- captures Standard 3.2's intent clearly. The writing team will consider whether similar language can be incorporated as a student-facing description in instructional resource materials.

#55 Std General

Comment: *Too many readings from the Federalist Papers. Also, if we're just discussing the structure of the government, let's focus on the actual documents that matter -- the Constitution and Federalist/Anti-Federalist papers. We don't need the extra things like Washington's Farewell Address and Lincoln's critique of the Dred Scott Case.*

RESPONSE: The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be

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studied as excerpts appropriate to the course level -- no source is expected to be read in its entirety. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing. Lincoln's critique of the Dred Scott decision is a required text under Utah Code 53E-4-204 and is studied in Standard 3.8. The writing team notes that this source is significant not primarily as a case study in judicial error but because Lincoln's critique represents one of the most powerful arguments in American history about the proper relationship between the branches -- specifically, whether judicial decisions bind the other branches absolutely or whether elected officials retain the responsibility to interpret the Constitution for themselves. This is directly relevant to Standard 3.8's examination of the role of the judiciary and to Standard 3.6's study of judicial independence. Washington's Farewell Address is also required and is one of the most significant primary sources in the entire course for examining constitutional fidelity, civic virtue, and the peaceful transfer of power.

#56 Std General

Comment: *The current draft of Standards 3.1 through 3.10 gives a clear view of how the government is designed on paper, but it needs to show more of how it works in the real world. The standards focus heavily on the 'perfect' vision of the Founders. To help high schoolers truly understand politics today, we should also teach them about the things that aren't in the Constitution but still have huge power, like lobbying, social movements, and the influence ...*

RESPONSE: The writing team designed Strand 3 to balance the foundational constitutional framework with connections to contemporary government. Standard 3.3 explicitly addresses 'developments and controversies involving federal legislative structures, powers, and practices' -- language that requires teachers to connect the constitutional framework to real-world examples. Standard 3.5 similarly requires examination of 'major developments and controversies involving presidential powers.' The guiding questions for Strand 3 include 'What are some examples of checks and balances and the separation of powers at work in current events and issues?' explicitly inviting contemporary application. Standards 3.9 through 3.12 connect constitutional structure to civic practice. The informal political processes that shape how government actually works -- including interest groups, lobbying, political movements, media influence, and campaign finance -- are important context for understanding government's real-world function. While these topics are not the primary focus of the constitutional standards in Strand 3, they are within the scope of teachers' curricular flexibility and will be noted for instructional resource development. Standard 3.3's

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reference to 'developments and controversies' specifically creates space for teachers to address how informal forces interact with formal constitutional structures.

#57 Std General

Comment: *I think Strand 3 should be paired with Strand 5. Perhaps strand 5 could be moved to strand 4. The structures of government and 'how the government should work' shouldn't be removed from 'how does government actually work.'*

RESPONSE: The writing team designed the strand sequence so that Strand 3 (constitutional structure) provides the foundation for Strand 5 (applied citizenship) -- students first understand how government is designed before examining how they participate in it. HB 381 requires that Strands 1-3 be completed before Strands 4-5. The writing team appreciates the concern that theory and application should feel connected, and instructional resource materials will address how teachers can build bridges between Strand 3's constitutional structure and Strand 5's civic engagement throughout the course.

#58 Std General

Comment: *Students in my AP US Government course aren't even required to read this many Federalist Papers. Again, I don't think that students will find these references interesting, engaging, or relevant to their own experiences.*

RESPONSE: The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be studied as excerpts appropriate to the course level -- no source is expected to be read in its entirety. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing.

#59 Std General

Comment: *Again, this is a LOT of Federalist Papers. I did not read this expanded number of Federalist Papers until my Masters Degree. Especially where it is mandated that Strands 1, 2 and 3 fall in the first semester.*

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RESPONSE: The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be studied as excerpts appropriate to the course level -- no source is expected to be read in its entirety. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing. The writing team is working to streamline standards as appropriate.

#60 Std General

Comment: *Does not include modern laws that affect people and does not mention precedence.*

RESPONSE: The writing team designed Strand 3 to balance the foundational constitutional framework with connections to contemporary government. Standard 3.3 explicitly addresses 'developments and controversies involving federal legislative structures, powers, and practices' -- language that requires teachers to connect the constitutional framework to real-world examples. Standard 3.5 similarly requires examination of 'major developments and controversies involving presidential powers.' The guiding questions for Strand 3 include 'What are some examples of checks and balances and the separation of powers at work in current events and issues?' explicitly inviting contemporary application. Standards 3.9 through 3.12 connect constitutional structure to civic practice. Instructional resource materials will support teachers in making these contemporary connections throughout the strand. The concept of precedent -- stare decisis, the principle that prior judicial decisions guide future ones -- is foundational to Standard 3.7's examination of how the Supreme Court makes decisions and interprets texts.

#61 Std General

Comment: *Primary documents not listed include: Brutus 4 to counter Fed. 57, Brutus 16 to counter Fed. 62, Brutus 11, 12, and 15 to counter Fed. 68 and 70. I am concerned that while a discussion of the Federalist Papers does have its place, the main purpose of these was to ratify the Constitution. I see no mention of individual Supreme Court Cases which have had much more impact on our daily lives.*

RESPONSE: The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be studied as excerpts appropriate to the course level -- no source is expected to be read in its

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entirety. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing. Additional suggested readings may be developed in instructional resource materials. The additional Brutus papers identified -- Brutus 4, 11, 12, and 16 -- are valuable Anti-Federalist counterpoints to the required Federalist Papers. While they are not required by HB 381, they will be noted in instructional resource materials as recommended supplemental Anti-Federalist readings for teachers who wish to develop a more comprehensive Federalist/Anti-Federalist dialogue. The writing team takes seriously the observation that *Marbury v. Madison* (1803) is not explicitly named in these standards despite being the foundational precedent establishing judicial review. Standard 3.6 requires students to examine how Article III and the Supremacy Clause 'empower the judiciary to interpret the U.S. Constitution and laws,' and Standard 3.7 asks students to examine how the Supreme Court makes decisions and interprets texts -- both of which directly engage judicial review as a concept. The writing team will consider whether *Marbury v. Madison* should be named explicitly in Standard 3.6 or 3.7, as it is the most direct primary source illustration of the principles those standards examine.

#62 Std General

Comment: *Should there be a statement in the Primary Sources area that a teacher could/should use relevant Supreme Court cases that have further defined the separation of powers or the idea of federalism? For example, students better understand federalism if they explore 3-4 court cases that showed when state or federal actions were supreme when looking at the Commerce Clause.*

RESPONSE: This is a valuable and practical suggestion. Teachers may and should incorporate relevant Supreme Court cases to illustrate the constitutional principles examined in each standard. Instructional resource materials will include a recommended list of cases.

#63 Std General

Comment: *I don't feel like Strand 2 and Strand 3 have enough about current functions of government. Many of these things could be combined. We are missing issues like: What functions do political parties serve? How do people determine their affiliations with political parties?*

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RESPONSE: The writing team designed Strand 3 to balance the foundational constitutional framework with connections to contemporary government. Standard 3.3 explicitly addresses 'developments and controversies involving federal legislative structures, powers, and practices' -- language that requires teachers to connect the constitutional framework to real-world examples. Standard 3.5 similarly requires examination of 'major developments and controversies involving presidential powers.' The guiding questions for Strand 3 include 'What are some examples of checks and balances and the separation of powers at work in current events and issues?' explicitly inviting contemporary application. Standards 3.9 through 3.12 connect constitutional structure to civic practice. Instructional resource materials will support teachers in making these contemporary connections throughout the strand. Political parties -- their functions, development, and relationship to constitutional structure -- are addressed in Standard 3.3 (legislative developments) and Standard 3.5 (executive developments and controversies). Washington's Farewell Address (Standard 3.12) directly addresses the dangers of political factionalism. The specific questions of how people determine political affiliation and party functions in contemporary politics are also addressed in Strand 5.

#64 Std General

Comment: *Highlight and underscore the crucial importance of Native American contributions.*

RESPONSE: Native American contributions to American political thought are addressed in Standard 2.1's required study of the Iroquois Constitution. The Strand 2 introduction also explicitly names 'American Indian tribal governments established through treaties with the United States' as part of the compound constitutional republic's distribution of power.

#65 Std 3.10, 3.11, 3.12

Comment: *3.10 through 3.12 are tasks not standards and should be removed. If the skills associated with these tasks were delineated in the skill strand these would make excellent examples for teachers to use with their students.*

RESPONSE: Standards 3.11 and 3.12 are intentionally structured as applied performance standards -- they ask students to synthesize the strand's content and demonstrate civic skills (persuasive argumentation in Standard 3.11, constitutional leadership and civic virtue in

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Standard 3.12) using the sources studied in the strand. They are not assessment items but standards that specify what students should be able to do with the content they have learned. Standard 3.12 in particular uses Washington's Farewell Address to ground the civic skills of constitutional fidelity, civic friendship, peaceful transfer of power, and citizenship in one of the course's most significant primary sources. Standard 3.10 is a content synthesis standard connecting the Declaration (Strand 1) to the Constitution (Strand 3). These three standards each serve distinct purposes within the strand: 3.10 synthesizes foundational principles, 3.11 develops civic argumentation skills, and 3.12 applies civic virtue analysis to Washington's Farewell Address. Removing them would eliminate important synthesis and skills work.

#66 Std General

Comment: *Too many Federalist papers and Brutus papers as required material.*

RESPONSE: The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be studied as excerpts appropriate to the course level -- no source is expected to be read in its entirety. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing.

#67 Std General

Comment: *There are way, way too many Federalist papers required in this unit. It feels much more like a university-level course than a high school course. Maybe create a 'required' section vs. a 'suggested' section for Federalist and Brutus readings? Twelve standards is simply not realistic for the course either.*

RESPONSE: The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be studied as excerpts appropriate to the course level -- no source is expected to be read in its entirety. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing

#68 Std 3.3

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Comment: *Standard 3.3 is redundant as 3.2 already emphasizes the powers of Congress.*

RESPONSE: Standards 3.2 and 3.3 address related but distinct content. Standard 3.2 examines the constitutional text of Article I -- the structures, enumerated powers, and constitutional design of the legislative branch as the Founders established it. Standard 3.3 examines how Congress actually functions in practice -- including the legislative functions (lawmaking, budgeting, oversight, impeachment), the developments that have shaped congressional practice over time (political parties, committees), and the controversies that have arisen. One addresses the constitutional blueprint; the other addresses the living institution.

#69 Std 3.5, 3.9

Comment: *Standards 3.5 and 3.9 could be merged to form one standard about how the roles and powers of the three branches have changed in modern times.*

RESPONSE: Standard 3.5 examines specific presidential powers and their development over time -- a standard focused on the executive branch. Standard 3.9 examines how a bill becomes a law, how it is enforced by the executive, and how it is interpreted by the judiciary -- a standard that traces the movement of law across all three branches. The writing team will review whether these two standards could be more clearly distinguished or whether elements could be consolidated without losing essential content.

#70 Std 3.10

Comment: *3.10 is interesting as a discussion question, but unnecessary as a content standard.*

RESPONSE: Standard 3.10 serves an important synthesis function: it asks students to connect the founding principles articulated in the Declaration of Independence (studied in Strand 1) to the constitutional structure of government (studied in Strand 3), and to explain the significant difference between writing a revolutionary document and writing a workable frame of government.

#71 Std 3.11

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Comment: *3.11 is a skill not a content standard. Consider making a skill portion of the description that teachers can apply throughout the course.*

RESPONSE: Standards 3.11 and 3.12 are intentionally structured as applied performance standards -- they ask students to synthesize the strand's content and demonstrate civic skills (persuasive argumentation in Standard 3.11, constitutional leadership and civic virtue in Standard 3.12) using the sources studied in the strand.

#72 Std 3.5

Comment: *3.5 -- Add pardon power.*

EDITED RESPONSE: The writing team will consider adding the pardon power to Standard 3.5's list of presidential powers alongside the veto, appointment, commander-in-chief, and executive orders.

#73 Std General

Comment: *I see the checks and balances integrated throughout the strands but would it make sense to have one strand dedicated to checks and balances? Students will explain the processes used by each branch to hold in check the powers exercised by the other two branches.*

RESPONSE: Standard 3.1 is specifically dedicated to the principles of separation of powers and checks and balances as implemented in the overall structure of the U.S. Constitution. It is intentionally placed first in Strand 3 to establish this framework before students examine each branch in detail. The checks and balances framework then runs throughout Standards 3.2 through 3.9 as students examine how each branch's powers constrain the others. Rather than a separate strand, the writing team designed checks and balances as the organizing framework for the entire strand.

#74 Std General

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Comment: *This would be a good place to discuss Montesquieu and also British traditions and documents.*

RESPONSE: Montesquieu's 'The Spirit of Laws' -- particularly its argument for separation of legislative, executive, and judicial powers -- is the intellectual foundation for Standard 3.1 and will be noted in instructional resource materials as a strongly recommended supplemental source.

#75 Std 3.1

Comment: *I am a big fan of Washington's Farewell Address and Lincoln's critique of Dred Scott. I am excited to teach these. Standard 3.1 feels very out of sequence. I think it should be omitted because it really is not a crucial skill, but if you must keep it, move it to an earlier strand.*

RESPONSE: Standard 3.1's examination of separation of powers and checks and balances is the structural framework for the entire strand -- it is placed first precisely because it establishes the constitutional organizing principle that Standards 3.2 through 3.9 then apply to each branch. Moving it to an earlier strand would separate the framework from the branch-specific content it organizes. The writing team is pleased that Washington's Farewell Address and Lincoln's critique of Dred Scott are generating genuine enthusiasm -- both are among the most significant primary sources in the course.

#76 Std 3.2, 3.10

Comment: *Standard 3.10 should be moved near Standard 1.5 in order to keep similar topics together.*

RESPONSE: Standard 3.10 asks students to compare the Declaration of Independence and the Constitution -- examining how the principles of the Declaration are expressed in constitutional design and explaining the difference between a revolutionary document and a frame of government. Its placement in Strand 3 is intentional: students need to have studied the full constitutional structure (Standards 3.1-3.9) before they can meaningfully compare the Declaration's principles to the Constitution's implementation. Placing it near Standard

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1.5 (which introduces the Declaration in Strand 1) would ask students to make this comparison before they have sufficient knowledge of the Constitution.

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Rule/Statute: [Board Policy 3002](#)

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Strand 4: Development of the American Constitution

#1 Std General

Comment: *Students should be offered historical examples of the civic virtues of prudence, courage, humility, duty, moderation, and civic charity, and be able to cite and discuss those examples from original documents and historical figures. Students can develop their own values and beliefs. The course should only cite and discuss examples, not decide or measure current student values.*

RESPONSE: The civic virtues listed in this course are drawn directly from the Founders' own language in the required primary sources. These virtues are presented as historical and political concepts for analysis, not as personal moral requirements to be assessed individually. Students demonstrate understanding by identifying and analyzing these terms in required primary source documents. Standard 4.9 asks students to analyze the civic skills and virtues as they appear in Lincoln's and Douglass's primary source texts -- not to adopt them as personal values. The standard is met when students can identify and explain these concepts as they appear in the required documents.

#2 Std General

Comment: *This is mostly good, also pretty big. It also seems really strange to not have the courts more emphasized here or an emphasis on the nuance behind voting rights.*

RESPONSE: The role of Supreme Court interpretation in developing and enforcing constitutional rights is addressed throughout Strand 4 -- Standard 4.3 requires students to examine 'the text, principles, and interpretation of the First Amendment,' and Standard 4.7 addresses 'incorporation of the Bill of Rights through the 14th Amendment.' The writing team will also consider whether a note should be added to the Strand 4 primary sources section indicating that teachers should incorporate relevant Supreme Court decisions throughout this strand.

#3 Std General

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Comment: *These look more like a college syllabus and not standards. You do not need to specify which documents need to be read in the standards.*

RESPONSE: The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be studied as excerpts appropriate to the course level. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing. Additional suggested readings may be developed in instructional resource materials.

#4 Std General

Comment: *Aren't there more modern constitutional scholars that you can recommend for reading rather than the Federalist Papers? Now that the Constitution has been in place for so long, isn't it more useful to see how it has worked in reality rather than some ideal from people so long ago?*

RESPONSE: The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be studied as excerpts appropriate to the course level. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing. Additional suggested readings may be developed in instructional resource materials. Strand 4 specifically addresses how constitutional principles have been applied, interpreted, and extended in practice

#5 Std 4.8

Comment: *Standard 4.8 references the 19th, 24th, and 26th Amendments alongside the 14th/15th for suffrage and voting rights, but there is no parallel requirement to examine their actual text, principles, or ratification -- unlike the detailed treatment of the Bill of Rights in 4.3-4.4 or the Reconstruction Amendments in 4.7.*

RESPONSE: This is a substantive and well-grounded observation. Standard 4.8 names the 19th, 24th, and 26th Amendments in its list of primary sources but does not explicitly require textual examination of their provisions in the way that Standards 4.3-4.4 and 4.7 do for the Bill of Rights and Reconstruction Amendments. The writing team will review Standard 4.8 to add language requiring students to examine the text, principles, and ratification of the

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19th, 24th, and 26th Amendments -- bringing it into parallel with the treatment of other amendments in the strand.

#6 Std 4.7, 4.8

Comment: *Standards 4.7-4.8 mention incorporation of the Bill of Rights through the 14th Amendment and initial attempts to enforce Reconstruction Amendments, but no specific cases are required. Classic cases that belong here: Plessy v. Ferguson (1896) and Brown v. Board of Education (1954).*

RESPONSE: The role of Supreme Court interpretation in developing and enforcing constitutional rights is addressed throughout Strand 4 -- Standard 4.3 requires students to examine 'the text, principles, and interpretation of the First Amendment,' and Standard 4.7 addresses 'incorporation of the Bill of Rights through the 14th Amendment.' The writing team acknowledges the concern that specific landmark cases are not named in Strand 4 as they are in Strand 3. Instructional resource materials will provide a recommended list of landmark Supreme Court cases organized by amendment and civil rights topic, giving teachers clear case options for each standard in Strand 4.

#7 Std General

Comment: *The Civil Rights Act of 1964 and Voting Rights Act of 1965. The guiding question asks how 20th-century legislation implemented the 13th-15th and 19th Amendments, but no standard actually requires studying these acts.*

RESPONSE: The Civil Rights Act of 1964 and the Voting Rights Act of 1965 are the primary legislative enforcement tools of the Reconstruction and suffrage amendments, and the guiding question 'How did civil rights legislation in the 20th century further implement the purpose of the 13th, 14th, 15th, and 19th Amendments?' directly invites their study. They will be highlighted in instructional resource materials as essential content for this standard.

#8 Std 4.1

Comment: *The Equal Rights Amendment (ERA) and its ratification process. This is a direct application of Article V (Standard 4.1) and the women's rights thread that runs from Seneca*

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Falls through the 19th Amendment. Its near-success and eventual failure illustrate both the amendment process in action and the ongoing debate over equality.

RESPONSE: The Equal Rights Amendment is an excellent applied example for Standard 4.1's examination of the Article V amendment process -- it illustrates the supermajority requirements, the role of state ratification, the debates over constitutional language, and the limits of constitutional change. It also connects directly to the women's rights thread that runs from the Seneca Falls Declaration through the 19th Amendment. While it is not a required text under Utah Code 53E-4-205.2, the ERA will be noted in instructional resource materials as a strongly recommended contemporary application for Standard 4.1.

#9 Std 4.6

Comment: *Standards like Standard 4.6 should have more direction. If students are reading these 2 required texts, there should be more than students will 'examine' -- WHAT are they examining about the 2 texts? The same thing could be said about 4.2.*

RESPONSE: Standards 4.2 and 4.6 specifically will be reviewed to add direction about what students should be able to do with the required texts.

#10 Std General

Comment: *Are there specific amendments you want to be covered more than others?*

RESPONSE: The amendments are distributed across Strand 4's standards by chronological and thematic logic: Article V and the amendment process (Standard 4.1), the Bill of Rights/Amendments 1-9 (Standards 4.3-4.4), the Civil War and Reconstruction Amendments 13-15 (Standard 4.7), and the suffrage and voting rights amendments 14, 15, 19, 24, and 26 (Standard 4.8). All are required content.

#11 Std General

Comment: *I feel that specific inclusion of key Supreme Court cases that affect the rights and liberties mentioned in the U.S. Constitution should be required.*

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RESPONSE: The role of Supreme Court interpretation in developing and enforcing constitutional rights is addressed throughout Strand 4 -- Standard 4.3 requires students to examine 'the text, principles, and interpretation of the First Amendment,' and Standard 4.7 addresses 'incorporation of the Bill of Rights through the 14th Amendment.' Instructional resource materials will provide a recommended list of landmark Supreme Court cases organized by amendment and civil rights topic, giving teachers clear case options for each standard in Strand 4.

#12 Std General

Comment: *Again, this is a HUGE amount of standards to cover in a single year. Along with the really heavy reading load in this strand, students will struggle to truly comprehend what they are learning. I believe that the primary sources should be minimized into the absolutely most important sources.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-2-205.2. The expanded scope reflects the expanded time. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#13 Std General

Comment: *The word 'constitution' is misspelled.*

RESPONSE: Thank you for this catch. 'Constitution' is misspelled in the Strand 4 introduction. This typographical error will be corrected in the standards document.

#14 Std 4.4 | Change | Wording

Comment: *To avoid appearance of partisanship, the mention of right to bear arms in 4.4 should be spoken of in the context of the first clause of the 2nd Amendment.*

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RESPONSE: Standard 4.4 examines 'the text, principles, and interpretation' of the Second through Ninth Amendments -- which necessarily includes the full text of the Second Amendment, including its prefatory clause ('A well regulated Militia, being necessary to the security of a free State').

#15 Std 4.8

Comment: *I don't think it is fair to put Women's Suffrage and civil rights in the same standard (4.8). They are both important and need their own standards.*

RESPONSE: Standard 4.8 covers significant constitutional ground -- the Women's Suffrage movement, the 20th-century Civil Rights Movement, voting rights amendments, and Utah's role in women's suffrage. The writing team acknowledges that this is the densest single standard in the strand creating an important thematic connection between these two movements and their shared constitutional foundation in the Reconstruction Amendments.

#16 Std General

Comment: *I understand the breaking up of the amendments, but students like learning them all at once.*

RESPONSE: The writing team designed the amendment coverage in Strand 4 to group amendments thematically and chronologically -- the Bill of Rights (Standards 4.3-4.4), the Civil War Amendments (Standard 4.7), and the voting rights amendments (Standard 4.8) -- because each group reflects a distinct moment in constitutional development and carries distinct civic significance. Instructional resource materials will include suggestions for teachers who wish to provide students with an overview of all amendments at the outset of Strand 4, while then examining each group in depth.

#17 Std General

Comment: *I think this strand is the most vague and the most problematic. There's a LOT that the standard is trying to cover. What about the Labor Rights Movement or the Gay Rights Movement? These civil rights movements have struck a chord with my students in 2026.*

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RESPONSE: The writing team acknowledges the concern that Strand 4's primary sources and civil rights content focuses predominantly on African American civil rights and women's suffrage, with limited representation of other groups' constitutional struggles. The required primary sources are mandated by Utah Code 53E-4-205.2 and cannot be changed. However, Standard 4.7's examination of 'the application of naturalization policies over time' and Standard 4.8's examination of the civil rights movement are broad enough to encompass the constitutional struggles of other groups.

#18 Std 4.8

Comment: *Standard 4.8 -- this feels like a LOT to cover all at once. I fear that students will lose interest. Why aren't we including legislation like the Civil Rights Act of 1964 and Voting Rights Act of 1965?*

RESPONSE: Standard 4.8 covers significant constitutional ground -- the Women's Suffrage movement, the 20th-century Civil Rights Movement, voting rights amendments, and Utah's role in women's suffrage. The writing team acknowledges that this is the densest single standard in the strand. There exists an important thematic connection between these two movements and their shared constitutional foundation in the Reconstruction Amendments. The Civil Rights Act of 1964 and the Voting Rights Act of 1965 are the primary legislative implementation of the Reconstruction and suffrage amendments and will be noted in instructional resource materials as essential content for Standard 4.8.

#19 Std 4.2

Comment: *Standard 4.2 -- this feels unnecessary to include in the strand. Students would be confused why we are exploring whether or not something exists when it is well-established in their lives.*

RESPONSE: Standard 4.2 asks students to evaluate the original debate about whether a written bill of rights was necessary -- examining Federalist No. 84 (which argued against it) and Brutus 2 (which argued for it). This is not an exercise in questioning whether a Bill of Rights exists today. It is an exercise in understanding why the Bill of Rights takes the form it does, why Hamilton believed listing rights might actually be dangerous, and why Anti-Federalists insisted on explicit protections. Understanding this founding debate

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deepens students' appreciation for why each specific right was codified and why its limits remain contested.

#20 Std 4.6

Comment: *Standard 4.6 -- where is the modern relevance? Students would immediately write this off as not relevant to their lives.*

RESPONSE: Standards 4.5 and 4.6 are included in this course because they address constitutional arguments -- not primarily historical events. Standard 4.5 examines how abolitionists' changing views of the Declaration and Constitution represent the most powerful natural rights argument against slavery, directly connecting Strand 1's natural rights tradition to the question of who is included in 'We the People.' Standard 4.6 examines Lincoln's natural law and natural rights response to popular sovereignty -- an argument about constitutional principles, not merely historical debate. Both standards are required because Utah Code 53E-4-205.2 specifies Lincoln and Douglass speeches as required primary sources.

#21 Std 4.9

Comment: *Standard 4.9 -- this standard implies that the strand is about times of political change and social division in the eyes of the Constitution and that's cool and necessary, but it doesn't feel very integrated with the rest of the standards.*

RESPONSE: Standard 4.9 is intentionally structured as an applied performance standard -- it asks students to synthesize the entire strand's content and demonstrate civic skills (petition and persuasion) and civic virtues (prudence, courage, humility, duty, moderation, and civic charity) through a study of Lincoln's 'Gettysburg Address,' 'Second Inaugural Address,' and Frederick Douglass's 'Oration in Memory of Abraham Lincoln.' These virtues are not social-emotional learning objectives -- they are the language Lincoln and Douglass themselves used to describe what constitutional fidelity requires in times of crisis. The civic virtues listed in this course are drawn directly from the Founders' own language in the required primary sources. These virtues are presented as historical and political concepts for analysis, not as personal moral requirements to be assessed individually. Students demonstrate understanding by identifying and analyzing these terms in required primary source documents. Instructional resource materials will clarify assessment expectations.

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Standard 4.9 is the strand's synthesis standard -- it draws on all of Strand 4's content, asking students to analyze the civic skills and virtues that Lincoln and Douglass demonstrated when navigating the most severe constitutional crisis in American history. The placement of Standard 4.9 after all the strand's content standards is deliberate: students need the full context of Strand 4 to understand what constitutional fidelity and civic friendship meant in Lincoln's and Douglass's moment.

#22 Std General

Comment: *This section should have Supreme Court cases that are studied so it is not just about theory but application of these principles. Kids have covered some of the historical documents in their history classes -- this section should focus on the application of civil rights and liberties.*

RESPONSE: The role of Supreme Court interpretation in developing and enforcing constitutional rights is addressed throughout Strand 4 -- Standard 4.3 requires students to examine 'the text, principles, and interpretation of the First Amendment,' and Standard 4.7 addresses 'incorporation of the Bill of Rights through the 14th Amendment.' Instructional resource materials will provide a recommended list of landmark Supreme Court cases organized by amendment and civil rights topic, giving teachers clear case options for each standard in Strand 4.

#23 Std General

Comment: *There are too many standards.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#24 Std General

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This draft is for consideration during the August 7, 2026 Standards & Assessment Committee Meeting

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Comment: *Can we please get some standards that talk about creating, role-playing, defending, and composing rather than just focusing on examining and analyzing? Those skills have their place in this content but should not dominate or be the sole focus of the course.*

RESPONSE: The writing team notes that Standard 4.9 specifically asks students to analyze civic skills and virtues -- a performance-oriented standard rather than a purely analytical one. Teachers may include varied activity formats for Strand 4, including debate, civic argument writing, case study role-play, and analysis of contemporary examples.

#25 Std General

Comment: *Don't forget to spellcheck (Constitution is spelled wrong in the opening paragraph). I am glad to see Douglass and King's writings included. I would also consider speeches by Malcolm X on Life, Liberty, and Land.*

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RESPONSE: Thank you for this catch. 'Constitution' is misspelled in the Strand 4 introduction. This typographical error will be corrected in the standards document. Malcolm X's speeches and writings represent an important and distinctive voice within the civil rights era -- one that challenges students to engage with the full range of constitutional arguments about rights, citizenship, and the limits of constitutional remedies. Malcolm X will be noted in instructional resource materials as a recommended supplemental primary source for Standard 4.8. Standards describe what students should know and be able to do -- they do not prescribe specific instructional activities, lesson formats, or supplemental materials beyond what is required by Utah Code 53E-4-205.2.

#26 Std 4.5, 4.7, General

Comment: *Strand 4 would benefit from more emphasis on multiple perspectives. In Standards 4.5 and 4.7, I would suggest more clearly requiring students to examine differing interpretations and critiques, not just how rights were extended.*

RESPONSE: Standard 4.5 already pairs Douglass's two contrasting views of the Constitution -- his earlier view that it was a proslavery document and his later view that it was a 'glorious liberty document.' The writing team will review Standards 4.5 and 4.7 for opportunities to

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add language explicitly inviting students to examine differing and competing interpretations of constitutional provisions and their enforcement

#27 Std General

Comment: *If you're going to look at the constitution you need to look at all of the amendments. This focuses on right-leaning amendments like the right to bear arms. That doesn't seem like the one to harp on in schools with underage kids.*

RESPONSE: The course is designed to develop students' capacity for critical thinking and evidence-based civic argument. The guiding questions throughout each strand are intentionally open-ended to support genuine civic inquiry. Standard 4.4 examines the text, principles, and interpretation of the Second through Ninth Amendments -- a full eight amendments, not a selective focus on the Second Amendment alone. The right to bear arms is named as one specific example within a standard that equally requires examination of the rights of the accused (Fourth, Fifth, Sixth, and Eighth Amendments), the Seventh Amendment right to jury trial, and the Ninth Amendment's reservation of unenumerated rights.

#28 Std General

Comment: *They must understand the compromises that were made imperfectly in order to move forward and that's part of the American process.*

RESPONSE: The imperfect compromises of the constitutional founding -- particularly the compromises on slavery that delayed full constitutional equality for nearly a century -- are central to Strand 4's narrative. Standard 4.5 examines how abolitionists wrestled with these compromises in their arguments about the Constitution. Standard 4.7 examines the Civil War Amendments as the constitutional response to those original failures. Standard 4.9 uses Lincoln's 'Second Inaugural Address' to examine how a constitutional leader acknowledged the nation's moral debt while seeking reunion. This strand is specifically designed to present the American constitutional process as ongoing, imperfect, and requiring active civic engagement.

#29 Std 4.8

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Comment: *4.8 is a mushy standard that has too much to be one standard. Consider splitting civil rights movement from women's suffrage, or else include women in the civil rights movement. The required documents only are looking at the black civil rights movement and neglecting AIM, Hispanic movements, and 2nd wave feminism.*

RESPONSE: Standard 4.8 covers significant constitutional ground -- the Women's Suffrage movement, the 20th-century Civil Rights Movement, voting rights amendments, and Utah's role in women's suffrage. The required primary sources are mandated by Utah Code 53E-4-205.2 and cannot be changed. However, Standard 4.7's examination of 'the application of naturalization policies over time' and Standard 4.8's examination of the civil rights movement are broad enough to encompass the constitutional struggles of other groups.

#30 Std General

Comment: *I'm confused why we keep going backward. We already did several of these, now we are going back? I feel like so much of this course doesn't go in chronological order.*

RESPONSE: The strand sequence is intentionally not purely chronological -- it is organized by conceptual depth. Strands 1-3 establish the foundational principles (Strand 1), the constitutional founding (Strand 2), and the constitutional structure (Strand 3). Strand 4 then returns to the constitutional history to examine how those principles and structures were applied, challenged, and extended over time through the amendment process and civil rights struggles. This approach follows a common pattern in constitutional education: establish the framework, then examine how it has been tested and developed.

#31 Std General

Comment: *The Constitution was developed long before Lincoln and his debates. That is not necessary and should not be included in the 'development of the Constitution' strand. It doesn't make sense.*

RESPONSE: The primary sources in Strand 4 -- Lincoln's speeches, the Lincoln-Douglas debates, Frederick Douglass's addresses, and the Seneca Falls Declaration -- are studied in this course because they represent constitutional arguments, not primarily as historical

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narratives. Standard 4.5 examines how abolitionists argued about the meaning of the Constitution; Standard 4.6 examines a constitutional debate about natural rights and popular sovereignty; Standard 4.9 examines how Lincoln and Douglass described what constitutional fidelity and civic friendship require. These are government and constitutional analysis standards, not history standards, even though they engage with historical primary sources. The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable.

#32 Std General

Comment: *The name of this unit is misleading. I thought this unit would be about the constitutional convention etc. I look at this unit as a civil rights and civil liberties unit. But the name is very misleading.*

RESPONSE: The writing team notes that the strand title 'Development of the American Constitution' has caused confusion -- several commenters correctly observe that the strand is primarily about civil rights, civil liberties, and how constitutional protections have been interpreted and extended over time. The writing team will consider whether a revised title such as 'Constitutional Rights, Liberties, and Their Development' better describes the strand's content while retaining the emphasis on constitutional change over time.

#33 Std General

Comment: *Strand 4 should be combined with Standards 3.6-3.8. Required documents -- speeches of Lincoln and Douglass should be studied in history, not a government class.*

RESPONSE: The primary sources in Strand (now) 3 -- Lincoln's speeches, the Lincoln-Douglas debates, Frederick Douglass's addresses, and the Seneca Falls Declaration -- are studied in this course because they represent constitutional arguments, not primarily as historical narratives. As we trimmed and revised the standards, we have addressed your concerns.

#34 Std 4.5

Comment: *4.5 -- abolition is covered in US History, Gov can have some background info but we should be focusing on current issues and topics and applying gov principles to that.*

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RESPONSE: Standards 4.5 and 4.6 are included in this course because they address constitutional arguments -- not primarily historical events. Standard 4.5 examines how abolitionists' changing views of the Declaration and Constitution represent the most powerful natural rights argument against slavery, directly connecting Strand 1's natural rights tradition to the question of who is included in 'We the People.' Standard 4.6 examines Lincoln's natural law and natural rights response to popular sovereignty -- an argument about constitutional principles, not merely historical debate. Both standards are required because HB 381 specifies Lincoln and Douglass speeches as required primary sources. This course is not a repetition of prior coursework. It is a new, full-year course replacing the current Government course as mandated by Utah Code 53E-4-205.2.

#35 Std 4.6

Comment: 4.6 -- Gov students do not need to study the Lincoln-Douglas debates.

RESPONSE: Standards 4.5 and 4.6 are included in this course because they address constitutional arguments -- not primarily historical events. Standard 4.5 examines how abolitionists' changing views of the Declaration and Constitution represent the most powerful natural rights argument against slavery, directly connecting Strand 1's natural rights tradition to the question of who is included in 'We the People.' Standard 4.6 examines Lincoln's natural law and natural rights response to popular sovereignty -- an argument about constitutional principles, not merely historical debate. Both standards are required because HB 381 specifies Lincoln and Douglass speeches as required primary sources. This course is not a repetition of prior coursework. It is a new, full-year course replacing the current Government course as mandated by HB 381. While some foundational content may overlap with prior courses, the depth of constitutional analysis, primary source engagement, and civic skills application represents a substantial expansion. The course's focus is specifically on American constitutional government and citizenship -- not a general social studies survey. The Lincoln-Douglas 'Ottawa Debate' is specifically required by HB 381. Standard 4.6 uses it to examine a foundational constitutional argument about natural rights versus popular sovereignty -- an argument that shapes American constitutional debates to this day.

#36 Std 4.7

Comment: 4.7 -- constitutional fidelity and civic friendship? What is meant by these? Gettysburg, Second Inaugural Address and oration -- history not government.

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RESPONSE: Constitutional fidelity refers to commitment to upholding and acting within the framework of the Constitution even when it is politically inconvenient -- the civic disposition Lincoln models in his 'Second Inaugural Address.' Civic friendship refers to the capacity to maintain civic bonds with fellow citizens across sharp political and moral disagreements -- a disposition essential to constitutional self-governance. These concepts appear in Standard 4.9, not Standard 4.7.

#37 Std General

Comment: *Stress that we are a constitutional republic.*

RESPONSE: The course consistently uses 'constitutional republic' to describe the American system of government -- this distinction is one of the central and explicit themes established in Standard 1.1 and carried through every strand. Strand 4's examination of how constitutional rights and liberties have been extended over time reinforces rather than contradicts this framework, demonstrating the constitutional mechanisms through which a republic can expand its circle of citizenship.

#38 Std General

Comment: *Strand 4 includes many important topics that focus on civil rights, civil liberties, and how constitutional principles have developed over time. The inclusion of key documents and movements is valuable. However, similar to the previous strands, the main concern is not the importance of the content but the volume.*

RESPONSE: Thank you for this affirming and balanced feedback. The writing team is pleased that the core content of Strand 4 resonates with reviewers. The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

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#39 Std General

Comment: *Minor grammatical suggestion: 'AF papers' changed to 'Anti-Federalist papers' to clearly identify what it is without the use of acronyms.*

RESPONSE: Thank you for this specific observation. The abbreviation 'AF papers' in the Strand 4 primary sources list should read 'Anti-Federalist papers' for clarity and consistency with the usage throughout the rest of the standards document. This correction will be made.

#40 Std 4.8

Comment: *I was wondering how the Letter from Birmingham Jail fits with Standard 4.8 and Women's Suffrage. It seems out of place there.*

RESPONSE: Standard 4.8 addresses both the Women's Suffrage movement and the 20th-century Civil Rights Movement together because both movements were fundamentally about enforcing and extending the constitutional protections of the Reconstruction Amendments and, in the case of the Civil Rights Movement, the promises of the 14th and 15th Amendments. The 'Letter from Birmingham Jail' belongs in Standard 4.8 because it is King's most direct constitutional argument -- invoking natural law, the Declaration of Independence, and the constitutional tradition examined throughout this strand -- for why civil rights legislation was constitutionally necessary.

#41 Std General

Comment: *Should be renamed to 'Civil Rights and Liberties.' 4.1 fine.*

RESPONSE: The writing team notes that the strand title 'Development of the American Constitution' has caused confusion -- several commenters correctly observe that the strand is primarily about civil rights, civil liberties, and how constitutional protections have been interpreted and extended over time. The writing team will consider whether a revised title such as 'Constitutional Rights, Liberties, and Their Development' better describes the strand's content while retaining the emphasis on constitutional change over time.

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#42 Std 4.2

Comment: 4.2 -- cut. These documents do not need to be read by general education students to have an understanding of government.

RESPONSE: The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be studied as excerpts appropriate to the course level. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing.

#43 Std 4.5

Comment: 4.5 can be cut. Seems to be better placed in a class for advanced students, not general education.

RESPONSE: Standards 4.5 and 4.6 are included in this course because they address constitutional arguments -- not primarily historical events. Standard 4.5 examines how abolitionists' changing views of the Declaration and Constitution represent the most powerful natural rights argument against slavery, directly connecting Strand 1's natural rights tradition to the question of who is included in 'We the People.' Standard 4.6 examines Lincoln's natural law and natural rights response to popular sovereignty -- an argument about constitutional principles, not merely historical debate. Both standards are required because Utah Code 53#-4-205.2 specifies Lincoln and Douglass speeches as required primary sources.

#44 Std 4.6

Comment: 4.6 can be cut and should be in US History curriculum.

RESPONSE: Standards 4.5 and 4.6 are included in this course because they address constitutional arguments -- not primarily historical events. Standard 4.5 examines how abolitionists' changing views of the Declaration and Constitution represent the most powerful natural rights argument against slavery, directly connecting Strand 1's natural rights tradition to the question of who is included in 'We the People.' Standard 4.6 examines Lincoln's natural law and natural rights response to popular sovereignty -- an argument about constitutional principles, not merely historical debate. Both standards are required

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because Utah Code 53E-4-205.2 specifies Lincoln and Douglass speeches as required primary sources.

#45 Std 4.9 | Delete | *Concepts or Ideas*

Comment: *4.9 seems to be an option for an assessment and should not be a standard.*

RESPONSE: Standard 4.9 is intentionally structured as an applied performance standard -- it asks students to synthesize the entire strand's content and demonstrate civic skills (petition and persuasion) and civic virtues (prudence, courage, humility, duty, moderation, and civic charity) through a study of Lincoln's 'Gettysburg Address,' 'Second Inaugural Address,' and Frederick Douglass's 'Oration in Memory of Abraham Lincoln.' These virtues are not social-emotional learning objectives -- they are the language Lincoln and Douglass themselves used to describe what constitutional fidelity requires in times of crisis. The civic virtues listed in this course are drawn directly from the Founders' own language in the required primary sources. These virtues are presented as historical and political concepts for analysis, not as personal moral requirements to be assessed individually. Students demonstrate understanding by identifying and analyzing these terms in required primary source documents.

#46 Std General

Comment: *Include increased emphasis on women's suffrage including writings of women; increased emphasis on the civil rights movement and Jim Crow laws as pertaining to the Bill of Rights. Also include more writings of US Natives and other minorities as pertaining to their fight for the rights included in the Bill of Rights.*

RESPONSE: The writing team acknowledges the concern that Strand 4's primary sources and civil rights content focuses predominantly on African American civil rights and women's suffrage, with limited representation of other groups' constitutional struggles. The required primary sources are mandated by HB 381 and cannot be changed. However, Standard 4.7's examination of 'the application of naturalization policies over time' and Standard 4.8's examination of the civil rights movement are broad enough to encompass the constitutional struggles of other groups.

#47 Std General

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Comment: *Not a lot of direction on the speeches -- are there certain Douglass speeches that should be covered? Also, this unit screams the use of Landmark Supreme Court Cases that have impacted Liberties and Rights over our history, even current cases.*

RESPONSE: The specific Douglass speeches required in this strand are named in the individual standards: 'What to the Slave Is the Fourth of July?' and 'The American Constitution and the Slave' (Standard 4.5), and 'Oration in Memory of Abraham Lincoln' (Standard 4.9). Instructional resource materials will clarify which speech is required for which standard and provide suggested excerpts. The role of Supreme Court interpretation in developing and enforcing constitutional rights is addressed throughout Strand 4 -- Standard 4.3 requires students to examine 'the text, principles, and interpretation of the First Amendment,' and Standard 4.7 addresses 'incorporation of the Bill of Rights through the 14th Amendment.' Instructional resource materials will provide a recommended list of landmark Supreme Court cases organized by amendment and civil rights topic, giving teachers clear case options for each standard in Strand 4.

#48 Std 4.4

Comment: *I like the question 'How have amendments changed who is included in We The People?' Why in 4.4 is the 2nd Amendment called out specifically? Is this because people in Utah tend to support it?*

RESPONSE: The writing team will review whether the standard's language can be revised to more clearly convey that all Second through Ninth Amendment protections receive attention.

#49 Std General

Comment: *More specific as to which documents.*

RESPONSE: The primary source documents required in Strand 4 are listed in the strand's primary sources section and, where applicable, named in individual standards. Instructional resource materials will provide a clear mapping of which specific document (or excerpt thereof) is required for which standard, along with suggested passages and scaffolding for each.

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#50 Std 4.5

Comment: *Strand 4, Standard 4.5: Language should be added to discuss how religious thought influenced the abolitionist movement.*

RESPONSE: The role of religious thought and moral conviction in the abolitionist movement -- including the influence of evangelical Christianity, Quaker testimony, and religious natural law arguments on Douglass and other abolitionists -- is valuable context for Standard 4.5.

#51 Std 4.8

Comment: *Strand 4, Standard 4.8: Language should be added to emphasize how religious thought and rhetoric at the time influenced the push for Women's Suffrage and the 20th-century Civil Rights Movements.*

RESPONSE: The influence of religious thought on both the Women's Suffrage movement and the 20th-century Civil Rights Movement is historically significant and constitutionally relevant -- King's 'Letter from Birmingham Jail' itself draws extensively on religious and natural law arguments. The writing team will consider whether acknowledging the religious dimensions of these movements can be incorporated in Standard 4.8 or its guiding materials. This will also be noted for instructional resource development.

#52 Std General | Change | Concepts or Ideas

Comment: *This is supposed to be the beginning of a second half year class. Why can't it be taught before the other 3 strands? Once again another 10 documents. Students are going to fail this class in record numbers because it looks like a master's level course on reading primary source documents.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate. The strand

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sequence follows a deliberate pedagogical progression -- students must understand the constitutional framework (Strands 1-3) before they can meaningfully analyze how constitutional rights and protections have been developed and extended (Strand 4). Placing Strand 4 before Strands 1-3 would ask students to evaluate constitutional amendments and civil rights arguments without the foundational knowledge of what the Constitution establishes and why. Instructional resource materials will include extensive scaffolding for Strand 4's primary sources.

#53 Std General

Comment: *Way too many standards. Is this a college class? Feels like it.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#54 Std General | Add | *Concepts or Ideas*

Comment: *Major Concern: The section covers civil rights movements, but there may be insufficient discussion of why constitutional promises repeatedly failed marginalized groups absent activism and conflict. This strand should more directly address the gap between constitutional ideals and historical practice.*

RESPONSE: This is a substantive and important concern. The gap between constitutional ideals and historical practice -- the fact that formal constitutional guarantees did not automatically produce equal treatment -- is one of the most important lessons of Strand 4. Standard 4.7 examines 'initial attempts to enforce' the Reconstruction Amendments, which implicitly addresses this gap, and Standard 4.8 examines why 'a civil rights movement was still needed' after the Reconstruction Amendments -- this guiding question directly addresses it.

#55 Std 4.2

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Comment: *Standard 4.2: An entire standard of the required class doesn't need to be devoted to these documents.*

RESPONSE: The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be studied as excerpts appropriate to the course level. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing. Additional suggested readings may be developed in instructional resource materials. Standard 4.2's examination of the debate over a written bill of rights is foundational to Strand 4 -- it explains why the Bill of Rights exists in the form it does and why each right required explicit constitutional protection. This context is essential for students to understand what they study in Standards 4.3 and 4.4.

#56 Std 4.5

Comment: *Standard 4.5: An entire standard of the required class doesn't need to be devoted to these documents.*

RESPONSE: Standards 4.5 and 4.6 are included in this course because they address constitutional arguments -- not primarily historical events. Standard 4.5 examines how abolitionists' changing views of the Declaration and Constitution represent the most powerful natural rights argument against slavery, directly connecting Strand 1's natural rights tradition to the question of who is included in 'We the People.' Standard 4.6 examines Lincoln's natural law and natural rights response to popular sovereignty -- an argument about constitutional principles, not merely historical debate. Both standards are required because Utah Code 53E-4-205.2 specifies Lincoln and Douglass speeches as required primary sources. The course's focus is specifically on American constitutional government and citizenship -- not a general social studies survey.

#57 Std 4.6

Comment: *Standard 4.6: These concepts are not prerequisites for citizenship participation. Standard 4.9 also flagged.*

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RESPONSE: Standards 4.5 and 4.6 are included in this course because they address constitutional arguments -- not primarily historical events. Standard 4.5 examines how abolitionists' changing views of the Declaration and Constitution represent the most powerful natural rights argument against slavery, directly connecting Strand 1's natural rights tradition to the question of who is included in 'We the People.' Standard 4.6 examines Lincoln's natural law and natural rights response to popular sovereignty -- an argument about constitutional principles, not merely historical debate. Both standards are required because Utah Code 53E-4-205.2 specifies Lincoln and Douglass speeches as required primary sources. This course is not a repetition of prior coursework. It is a new, full-year course replacing the current Government course as mandated by Utah Code 53E-4-205.2. While some foundational content may overlap with prior courses, the depth of constitutional analysis, primary source engagement, and civic skills application represents a substantial expansion. The course's focus is specifically on American constitutional government and citizenship -- not a general social studies survey. Standard 4.9 is intentionally structured as an applied performance standard -- it asks students to synthesize the entire strand's content and demonstrate civic skills (petition and persuasion) and civic virtues (prudence, courage, humility, duty, moderation, and civic charity) through a study of Lincoln's 'Gettysburg Address,' 'Second Inaugural Address,' and Frederick Douglass's 'Oration in Memory of Abraham Lincoln.' These virtues are not social-emotional learning objectives -- they are the language Lincoln and Douglass themselves used to describe what constitutional fidelity requires in times of crisis. The civic virtues listed in this course are drawn directly from the Founders' own language in the required primary sources. These virtues are presented as historical and political concepts for analysis, not as personal moral requirements to be assessed individually. Students demonstrate understanding by identifying and analyzing these terms in required primary source documents. Instructional resource materials will clarify assessment expectations.

#58 Std General

Comment: *Overall, the standards are NOT WRITTEN AT A 12th-grade level -- these are university-level classes. The skills should encourage students to interact as active citizens in their community as much as possible. This should be an ACTIVE strand.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. Required primary source readings are intended to be

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studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#59 Std 4.1

Comment: *Here is an example of what it could look like: Standard 1: The Constitutional 'Edit' Mode. You'll analyze the Article V amendment process and the high-stakes debate between Federalist No. 84 and Brutus 2 over whether we even needed a Bill of Rights.*

RESPONSE: The student-friendly framing suggested here -- 'The Constitutional Edit Mode' -- is an excellent model for how instructional resource materials can translate the standards into engaging, accessible language for students. While the standards themselves use more formal language appropriate to a board document, instructional resource materials will include student-facing descriptions and unit framings of this kind. We appreciate the detailed and creative engagement with the course design.

#60 Std 4.2

Comment: *Standard 2: The Civil Liberties Scorecard. You'll examine the 1st through 9th Amendments, covering everything from free speech and religious freedom to the rights of the accused and the right to bear arms. The Move: Take modern-day scenarios -- like social media censorship or privacy in the digital age -- and apply the Bill of Rights.*

RESPONSE: The 'Civil Liberties Scorecard' framing and the suggestion to apply the Bill of Rights to modern scenarios -- social media censorship, digital privacy -- are excellent models for instructional resource development.

#61 Std 4.3

Comment: *Standard 3: The Moral Trial (Lincoln vs. Douglass). You'll compare the arguments of Frederick Douglass, Abraham Lincoln, and Stephen Douglas regarding slavery, natural law, and the Ottawa Debate. The Move: Analyze their thought evolution -- how Douglass and Lincoln moved from seeing the Constitution as a flawed compromise to a 'glorious liberty document' that demanded equal rights for all.*

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RESPONSE: The 'thought evolution' framing for the Lincoln and Douglass arguments -- tracing how both men's constitutional views developed over time -- is an excellent pedagogical approach for Standards 4.5 and 4.6. This kind of intellectual biography approach makes the primary source analysis concrete and narrative for students. These suggestions will be noted for instructional resource development. Standards describe what students should know and be able to do -- they do not prescribe specific instructional activities, lesson formats, or supplemental materials beyond what is required by Utah Code 53E-4-205.2.

#62 Std 4.4

Comment: *Standard 4: The 'Second Founding' Investigation. You'll study the 13th, 14th, and 15th Amendments to see how the Civil War changed the definition of 'We the People' and established national citizenship. The Move: Investigate how the 14th Amendment changed everything.*

RESPONSE: The 'Second Founding' framing -- which describes the Civil War Amendments as a fundamental reconstruction of American constitutional identity -- is a widely recognized and pedagogically powerful framework for Standard 4.7's content.

#63 Std 4.5

Comment: *Standard 5: The Protest and Virtue Playbook. You'll analyze the Suffrage and Civil Rights Movements through the Declaration of Sentiments, Letter from Birmingham Jail, and the history of Utah's own voting rights pioneers. The Move: Analyze the 'receipts' left by history's most effective activists, identifying the specific civic virtues needed to fix a broken system without breaking the country.*

RESPONSE: The 'Protest and Virtue Playbook' framing is an engaging and accurate description of Standard 4.8's and 4.9's intent -- connecting the civic virtues examined throughout the course to the specific qualities that made historical activists constitutionally effective. The emphasis on Utah's own voting rights pioneers in particular helps connect the national constitutional narrative to students' own state and community. These suggestions will be noted for instructional resource development.

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#64 Std General

Comment: *Should be named something different. 'Development' sounds like it's how the constitution was created. A better word would be 'evolution.' Also, is this strand about civil rights, or is it about how the constitution changed interpretations over time?*

RESPONSE: The writing team will consider whether a revised title such as 'Constitutional Rights, Liberties, and Their Development' better describes the strand's content while retaining the emphasis on constitutional change over time.

#65 Std General

Comment: *The draft for Standards 4.1 through 4.9 provides a strong historical narrative of how rights have evolved, but the language should be updated to move beyond a 'story of progress' that often hides the complexity of social change. The standards should emphasize that constitutional change is driven as much by grassroots protest and social movements as it is by legislative votes.*

RESPONSE: This is a substantive and valuable concern. The writing team acknowledges that framing constitutional development as a progressive 'story of progress' can obscure the role of grassroots activism, persistent resistance, and social conflict in producing constitutional change. Standard 4.8's examination of the Women's Suffrage and Civil Rights Movements already requires examining these movements -- but the writing team will review the strand's introduction and Standards 4.7 and 4.8 to ensure that the role of civic activism and social struggle in producing constitutional change is explicitly recognized alongside formal legislative and judicial processes.

#66 Std 4.9

Comment: *The 'Civic Virtues' in Standard 4.9 should be broadened to include a more diverse range of actions. While 'moderation' and 'humility' are valuable, the standards should also recognize that courageous dissent and persistent protest are fundamental American virtues.*

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RESPONSE: The writing team notes that 'courage' is already one of the named civic virtues in Standard 4.9 -- and in the context of Lincoln's 'Second Inaugural Address' and Douglass's

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'Oration in Memory of Abraham Lincoln,' this courage specifically includes the courage of principled dissent and persistent advocacy for constitutional equality.

#67 Std General

Comment: *I find it appalling that an entire strand on civil liberties and civil rights only includes discussions and issues relating to two groups: women and African Americans. There are many other racial and ethnic minority groups that have made gains in civil rights, in addition to gains for LGBTQ+ individuals and those with disabilities.*

RESPONSE: The writing team acknowledges the concern that Strand 4's primary sources and civil rights content focuses predominantly on African American civil rights and women's suffrage, with limited representation of other groups' constitutional struggles. The required primary sources are mandated by Utah Code 53E-4-205.2 and cannot be changed. However, Standard 4.7's examination of 'the application of naturalization policies over time' and Standard 4.8's examination of the civil rights movement are broad enough to encompass the constitutional struggles of other groups.

#68 Std General

Comment: *I currently teach a very in-depth unit on Civil Rights and Civil Liberties. We cover all of the Bill of Rights and the Civil War Amendments and between 15 and 20 Supreme Court decisions. The reading list included in this Strand is fantastic -- for college students. I loved all of those readings -- when I read them for my Master's Degree.*

RESPONSE: Thank you for this affirming and candid feedback from an experienced teacher. The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#69 Std General

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Comment: *It jumps around history too much and skips over big sections of time. Also, this is the only standard that mentions women's rights and their contribution to the government.*

RESPONSE: Strand 4 is not designed as a comprehensive chronological survey of American history -- it examines specific moments when constitutional principles were most directly tested and developed. Women's constitutional contributions appear in Standard 4.8 (Women's Suffrage Movement, 19th Amendment, Utah women's suffrage) and in the Seneca Falls Declaration of Sentiments, which is a required primary source throughout the strand.

#70 Std General

Comment: *This standard skips over large chunks of time and important parts of government. This is the only standard that mentions women's rights and their contribution to the government.*

RESPONSE: Strand 4 examines specific constitutional moments rather than providing a comprehensive chronological survey. Women's contributions to constitutional development are addressed in Standard 4.8 (Women's Suffrage, 19th Amendment, Utah women's suffrage) and in the Seneca Falls Declaration of Sentiments, which is a required primary source listed at the strand level. The guiding questions also explicitly reference 'how the arguments made by Lincoln, Douglass, Stanton, King, and others draw upon the natural rights tradition,' naming Elizabeth Cady Stanton alongside the other figures.

#71 Std General

Comment: *Introduction: Someone spelled Constitution incorrectly.*

RESPONSE: Thank you for this catch. 'Constitution' is misspelled in the Strand 4 introduction. This typographical error will be corrected in the standards document.

#72 Std General

Comment: *'Those rights and liberties have been...' Many of these rights are shaped by actions of the Supreme Court; here, too, they are not listed.*

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RESPONSE: The role of Supreme Court interpretation in developing and enforcing constitutional rights is addressed throughout Strand 4 -- Standard 4.3 requires students to examine 'the text, principles, and interpretation of the First Amendment,' and Standard 4.7 addresses 'incorporation of the Bill of Rights through the 14th Amendment.' The writing team acknowledges the concern that specific landmark cases are not named in Strand 4. Instructional resource materials will provide a recommended list of landmark Supreme Court cases organized by amendment and civil rights topic, giving teachers clear case options for each standard in Strand 4.

#73 Std General

Comment: *List all of the Federalist and Anti-Federalist papers to be used.*

RESPONSE: The required Federalist and Anti-Federalist papers for Strand 4 are listed in the primary sources section: Federalist No. 84 and Brutus 2.

#74 Std General

Comment: *Speeches of... Which speeches of Lincoln? Douglass? Where is Purvis or Garrison? While Douglass is 'popular,' there are others who might serve this section better.*

RESPONSE: The specific Lincoln and Douglass speeches required in Strand 4 are named in individual standards: Standard 4.5 requires Douglass's 'What to the Slave Is the Fourth of July?' and 'The American Constitution and the Slave'; Standard 4.6 requires Lincoln's arguments in the 'Ottawa Debate'; and Standard 4.9 requires Lincoln's 'Gettysburg Address' and 'Second Inaugural Address' and Douglass's 'Oration in Memory of Abraham Lincoln.' These are mandated by Utah Code 53E-4-205.2. Robert Purvis and William Lloyd Garrison are important abolitionist voices who may be noted in instructional resource materials. Standards describe what students should know and be able to do -- they do not prescribe specific instructional activities, lesson formats, or supplemental materials.

#75 Std General

Comment: *Guiding questions: Several of these need to include information from Supreme Court cases.*

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RESPONSE: The role of Supreme Court interpretation in developing and enforcing constitutional rights is addressed throughout Strand 4 -- Standard 4.3 requires students to examine 'the text, principles, and interpretation of the First Amendment,' and Standard 4.7 addresses 'incorporation of the Bill of Rights through the 14th Amendment.' Instructional resource materials will provide a recommended list of landmark Supreme Court cases organized by amendment and civil rights topic, giving teachers clear case options for each standard in Strand 4.

#76 Std 4.4

Comment: *Standard 4.4 -- Will time be set for the 3rd Amendment?*

RESPONSE: Standard 4.4 requires students to examine the text, principles, and interpretation of the Second through Ninth Amendments -- this explicitly includes the Third Amendment (prohibition of quartering soldiers). This amendment will most likely not require lengthy discussion.

#77 Std 4.9

Comment: *Standard 4.9 -- Find another voice other than Frederick Douglass.*

RESPONSE: The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be studied as excerpts appropriate to the course level. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing. Additional suggested readings may be developed in instructional resource materials. Frederick Douglass's 'Oration in Memory of Abraham Lincoln' is specifically required for Standard 4.9 by Utah Code 53E-4-205.2. However, the writing team notes that teachers may incorporate additional voices alongside Douglass.

| Change | *Concepts or Ideas*

Comment: *I believe the bulk of this strand works better in a US History II class. It was my understanding that adding in an extra semester of Civics instruction would provide more class time for students to engage in Civic activity rather than linger in theory. Strand 5 is large enough that it would provide the needed guidance for the 2nd Semester Course.*

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RESPONSE: The primary sources in Strand 4 -- Lincoln's speeches, the Lincoln-Douglas debates, Frederick Douglass's addresses, and the Seneca Falls Declaration -- are studied in this course because they represent constitutional arguments, not primarily as historical narratives. Standard 4.5 examines how abolitionists argued about the meaning of the Constitution; Standard 4.6 examines a constitutional debate about natural rights and popular sovereignty; Standard 4.9 examines how Lincoln and Douglass described what constitutional fidelity and civic friendship require. These are government and constitutional analysis standards, not history standards, even though they engage with historical primary sources. The specific primary source documents required in this strand are mandated by Utah Code 53E-4-205.2 and are therefore non-negotiable. These sources are intended to be studied as excerpts appropriate to the course level. Teachers retain significant discretion in selecting specific passages, scaffolding materials, and pacing.

#79 Std General

Comment: *In the primary sources section the Anti-Federalist papers are for the first time referred to as 'AF'. For consistency they should be referred to as 'Anti-Federalist' throughout. In various parts of Strand 4 specific primary sources are referenced outside of the general list. Should these be listed just in the Primary Source section as in the other Strands?*

RESPONSE: Thank you for this specific and careful observation. The abbreviation 'AF' will be replaced with 'Anti-Federalist' throughout Strand 4 for consistency with the rest of the document.

#80 Std 4.9

Comment: *4.9 could be a spot to more explicitly have students look to current events of disagreement similar to what 1.2 and 1.3 might be attempting.*

RESPONSE: Standard 4.9's examination of the civic skills and virtues required for constitutional fidelity in times of political change and social division lends itself directly to contemporary application -- asking students to identify current examples of these virtues in practice, or their absence.

#81 Std General

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Comment: *I guess I am wondering why this isn't just labeled as 'Civil Rights and Liberties' versus 'Development of the American Constitution' because that is the focus.*

RESPONSE: The writing team notes that the strand title 'Development of the American Constitution' has caused confusion -- several commenters correctly observe that the strand is primarily about civil rights, civil liberties, and how constitutional protections have been interpreted and extended over time. The writing team will consider whether a revised title such as 'Constitutional Rights, Liberties, and Their Development' better describes the strand's content while retaining the emphasis on constitutional change over time.

#82 Std General

Comment: *I feel like this is VERY repetitive. Strand 2-4 could easily be combined into 1-2 rather than three. I haven't seen anything about foreign policy and fiscal policy.*

RESPONSE: Strands 2, 3, and 4 address related but distinct constitutional content: Strand 2 examines the constitutional founding, Strand 3 examines constitutional structure, and Strand 4 examines the development of constitutional rights and liberties over time. These are complementary, not redundant. Foreign policy and fiscal policy are outside the scope of this course as mandated by HB 381, which focuses specifically on constitutional government and citizenship. Teachers may address these topics at their discretion through curricular decisions at the local level.

#83 Std General

Comment: *The titles of Strand 4 does not match its content and is especially awkward after Strand 3 has already covered Articles I, II, and III. It seems that the focus of Strand 4 is on the Constitution in practice rather than its development. Perhaps a nod to the nation's interpretation over time.*

RESPONSE: The writing team will consider whether a revised title such as 'Constitutional Rights, Liberties, and Their Development' better describes the strand's content while retaining the emphasis on constitutional change over time.

#84 Std General

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Comment: *It is good to see the primary sources listed in this section, but many principal sources of founding philosophy are missing. For instance, the works of Locke and Hobbes provided critical context to discussions about the overarching purpose of government.*

RESPONSE: Enlightenment philosophical sources -- including Locke's influence on natural rights theory -- are addressed in Strand 1, Standard 1.3. Strand 4 builds on that foundation by examining how natural rights arguments were applied in specific constitutional debates (Standards 4.5-4.6) and how the Constitution's protections have been interpreted and extended over time (Standards 4.3-4.4, 4.7-4.8). Supplemental philosophical sources may be noted in instructional resource materials for teachers who wish to reinforce connections to Strand 1 content.

#85 Std General

Comment: *Highlight and underscore the crucial importance of Native American contributions.*

RESPONSE: The writing team acknowledges the concern that Strand 4's primary sources and civil rights content focuses predominantly on African American civil rights and women's suffrage, with limited representation of other groups' constitutional struggles. The required primary sources are mandated by Utah Code 53E-4-205.2 and cannot be changed. However, Standard 4.7's examination of 'the application of naturalization policies over time' and Standard 4.8's examination of the civil rights movement are broad enough to encompass the constitutional struggles of other groups.

#86 Std General | Change | Wording

Comment: *This strand uses an overabundance of the verb 'examine.' What is the purpose of this examination? It would be more beneficial to use academic vocabulary such as: analyze, evaluate, interpret, assess, synthesize, formulate, identify, distinguish, infer, critique, justify.*

RESPONSE: The writing team acknowledges that 'examine' appears frequently throughout these standards and agrees that greater specificity in action verbs can strengthen the clarity of expected student performance. We will review Strand 4 standards for opportunities to

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replace 'examine' with more precise verbs -- such as 'analyze,' 'evaluate,' 'compare,' or 'construct a claim' -- where doing so increases clarity.

#87 Std 4.8

Comment: *4.8 is an extremely dense standard and needs to be separated into the Women's Suffrage Movement and then an additional standard on the Civil Rights Movement.*

RESPONSE: Standard 4.8 covers significant constitutional ground -- the Women's Suffrage movement, the 20th-century Civil Rights Movement, voting rights amendments, and Utah's role in women's suffrage. The writing team acknowledges that this is the densest single standard in the strand. However, together they create an important thematic connection.

#88 Std 4.9

Comment: *4.9 is another example of a task rather than a standard and the general idea of it could be captured by including a standard in the skill strand that discusses examining historical documents for civic virtues.*

RESPONSE: Standard 4.9 is intentionally structured as an applied performance standard -- it asks students to synthesize the entire strand's content and demonstrate civic skills (petition and persuasion) and civic virtues (prudence, courage, humility, duty, moderation, and civic charity) through a study of Lincoln's 'Gettysburg Address,' 'Second Inaugural Address,' and Frederick Douglass's 'Oration in Memory of Abraham Lincoln.' These virtues are not social-emotional learning objectives -- they are the language Lincoln and Douglass themselves used to describe what constitutional fidelity requires in times of crisis. The civic virtues listed in this course are drawn directly from the Founders' own language in the required primary sources. These virtues are presented as historical and political concepts for analysis, not as personal moral requirements to be assessed individually.

#89 Std General

Comment: *There seems to be no place in the current standards for discussion of the Native American influence on the development of our constitution.*

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RESPONSE: The writing team acknowledges the concern that Strand 4's primary sources and civil rights content focuses predominantly on African American civil rights and women's suffrage, with limited representation of other groups' constitutional struggles. The required primary sources are mandated by Utah Code 53E-4-205.2 and cannot be changed. However, Standard 4.7's examination of 'the application of naturalization policies over time' and Standard 4.8's examination of the civil rights movement are broad enough to encompass the constitutional struggles of other groups.

#90 Std General

Comment: *Again, these standards are redundant. Students are going to disengage, they already know.*

RESPONSE: This course is not a repetition of prior coursework. It is a new, full-year course replacing the current Government course as mandated by Utah Code 53E-4-205.2. While some foundational content may overlap with prior courses, the depth of constitutional analysis, primary source engagement, and civic skills application represents a substantial expansion. The course's focus is specifically on American constitutional government and citizenship -- not a general social studies survey. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#91 Std General

Comment: *All of those required documents are used in U.S. History the year prior. This is more of a review again of what has already been taught.*

RESPONSE: This course is not a repetition of prior coursework. It is a new, full-year course replacing the current Government course as mandated by Utah Code 53E-4-205.2. While some foundational content may overlap with prior courses, the depth of constitutional analysis, primary source engagement, and civic skills application represents a substantial expansion. The course's focus is specifically on American constitutional government and citizenship -- not a general social studies survey. Strand 4 engages the Lincoln speeches, Douglass addresses, and Seneca Falls Declaration as constitutional analysis -- examining their natural rights arguments, their constitutional claims, and their role in shaping amendments and civil rights legislation.

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#92 Std General

Comment: *How are liberties 'codified' in the declaration? Why are we going backwards to the Declaration? This feels asynchronous, as does continued use of Federalist papers and Brutus.*

RESPONSE: The Strand 4 introduction states that 'civil rights and liberties are codified in the Declaration of Independence and the U.S. Constitution' -- this refers to the Declaration's articulation of natural rights (life, liberty, and the pursuit of happiness) as foundational to the constitutional framework, not to the Declaration as a legal document with enforceable provisions. The Declaration's natural rights language is the philosophical foundation that the Founders drew upon when drafting the Constitution and Bill of Rights. Strand 4's return to these principles is intentional -- students examine how civil rights advocates, from abolitionists to civil rights leaders, appealed to these founding principles to argue for constitutional change.

#93 Std 4.2

Comment: *Standard 4.2 is interesting, but feels like a university discussion rather than a high school content standard.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. Required primary source readings are intended to be studied as excerpts, not complete texts. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate. Standard 4.2's examination of the debate over a written bill of rights is foundational to students' understanding of their own rights. The writing team acknowledges that the depth of analysis expected by Standard 4.2 may need scaffolding for many students.

#94 Std 4.5, 4.6

Comment: *4.5 and 4.6 are unnecessary, and again feel too detailed for this course.*

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RESPONSE: Standards 4.5 and 4.6 are included in this course because they address constitutional arguments -- not primarily historical events. Standard 4.5 examines how abolitionists' changing views of the Declaration and Constitution represent the most powerful natural rights argument against slavery, directly connecting Strand 1's natural rights tradition to the question of who is included in 'We the People.' Standard 4.6 examines Lincoln's natural law and natural rights response to popular sovereignty -- an argument about constitutional principles, not merely historical debate. Both standards are required because Utah Code 53E-4-205.2 specifies Lincoln and Douglass speeches as required primary sources.

#95 Std 4.8

Comment: *4.8 is HUGE and covers far too much. How can it be rewritten to communicate the same sentiment about constitutional change, without jumping between women's rights and suffrage, the civil rights movement, 'Letter from a Birmingham Jail,' AND the Utah state constitution? (I think the state constitution would work much better in a unit that is specifically focused on Federalism OR the role of state governments.)*

RESPONSE: Standard 4.8 covers significant constitutional ground -- the Women's Suffrage movement, the 20th-century Civil Rights Movement, voting rights amendments, and Utah's role in women's suffrage. The writing team acknowledges that this is the densest single standard in the strand. However pairing them together creates an important thematic connection between these two movements and their shared constitutional foundation in the Reconstruction Amendments.

#96 Std 4.9

Comment: *In Standard 4.9 I am wondering how am I, a high school teacher with two degrees in international politics, supposed to teach 'prudence,' 'humility,' and 'moderation.' This sounds like a class on social emotional learning.*

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RESPONSE: The civic virtues listed in this course are drawn directly from the Founders' own language in the required primary sources. These virtues are presented as historical and political concepts for analysis, not as personal moral requirements to be assessed individually. Students demonstrate understanding by identifying and analyzing these terms in required primary source documents. Instructional resource materials will clarify assessment expectations. In Standard 4.9 specifically, these virtues are the analytical vocabulary Lincoln and Douglass themselves use in the required primary sources. Students are not asked to demonstrate personal humility or moderation -- they are asked to identify where Lincoln and Douglass use these concepts in their texts and explain what role these virtues played in navigating constitutional crisis. The standard is met through primary source analysis, not character assessment.

#97 Std 4.9

Comment: *I want clarity on what is meant by 'constitutional fidelity.' Please include if it is meant to mean strict adherence to original intent or rather commitment to evolving constitutional principles.*

RESPONSE: 'Constitutional fidelity' as used in Standard 4.9 refers to commitment to upholding, working within, and acting in accordance with the constitutional framework -- even when one believes the Constitution is imperfect or when the political stakes are high. This concept is studied specifically through Lincoln's 'Second Inaugural Address' and Douglass's 'Oration in Memory of Abraham Lincoln,' where both figures grapple with what loyalty to constitutional principles requires in the aftermath of the Civil War. The debate between originalism and living constitutionalism -- strict original intent versus evolving constitutional principles -- is itself an important topic that teachers may address within Standard 4.7 and Standard 3.6. Instructional resource materials will define 'constitutional fidelity' and distinguish it from interpretive approaches to constitutional meaning.

#98 Std 4.3, 4.4, 4.7

Comment: *It seems like the Supreme Court's interpretation of the amendments is vital in understanding how they apply today but I don't see any mention of the Supreme Court in this strand. I suggest integrating relevant Supreme Court decisions in Standards 4.3, 4.4, and 4.7 or having a standalone strand highlighting the role of the Supreme Court.*

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RESPONSE: The role of Supreme Court interpretation in developing and enforcing constitutional rights is addressed throughout Strand 4 -- Standard 4.3 requires students to examine 'the text, principles, and interpretation of the First Amendment,' and Standard 4.7 addresses 'incorporation of the Bill of Rights through the 14th Amendment.' The writing team acknowledges the concern that specific landmark cases are not named in Strand 4 as they are in Strand 3. Instructional resource materials will provide a recommended list of landmark Supreme Court cases organized by amendment and civil rights topic, giving teachers clear case options for each standard in Strand 4. The writing team will also consider whether a note should be added to the Strand 4 primary sources section indicating that teachers should incorporate relevant Supreme Court decisions throughout this strand.

#99 Std General

Comment: *Overall I really like this strand. If you can cut it down, though, you will have a lot more time in semester 2 for 21st-century skills like online civic reasoning, civil dialogue, engaging with elected officials, and students could actually do a civic action project.*

RESPONSE: Thank you for this affirming feedback and for the constructive suggestion. The writing team has carefully considered concerns about the volume of standards and level of rigor. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#100 Std 4.2, 4.3

Comment: *4.2 and 4.3 both discuss 'interpretation' of the First Amendment and amendments 2-9. A plethora of interpretations exist for these amendments, particularly 1 and 2. Which interpretations will be discussed, and how will these topics be handled to maintain a distinction between particular interpretations and more concrete rulings?*

RESPONSE: The standards ask students to examine the 'text, principles, and interpretation' of these amendments, which is an analytical task: students examine what the text says, what principles it reflects, and how it has been interpreted, rather than being directed to adopt any particular interpretation.

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Strand 5: Practicing Constitutional Citizenship

#1 Std General

Comment: *All questions should ask students to cite original writings, examples, or individuals, not measure or determine their own opinion. This course should not measure the opinions of teens, it should teach teens according to original sources.*

RESPONSE: The civic virtues referenced in this strand are drawn from the constitutional and founding documents studied throughout the course. They are presented as historical and political concepts for analysis, not as personal moral requirements to be assessed individually. Students demonstrate understanding by identifying and analyzing these concepts in primary source documents and applying them to civic contexts. Standard 5.8 in particular asks students to draw on the Declaration of Independence, the U.S. Constitution, and the principles studied throughout the course -- grounding their reflection in the primary sources of the course rather than in unconstrained personal opinion.

#2 Std General

Comment: *This is definitely the strand that will be short-changed in the year. It is good in principle but it is disconnected from the meat of Strands 3 and 4 and it will be post spring break. Also, really strange that there isn't a greater emphasis on the multicultural nature of our nation.*

RESPONSE: Strand 5 is the applied citizenship strand -- it is the strand most directly connected to students' lives as current and future civic participants. The writing team acknowledges that eleven standards is a substantial scope for a single strand. Instructional resource materials will include pacing guidance and will identify which standards can be addressed through integrated, project-based instruction rather than sequential standalone lessons. Standards 5.11 in particular is designed as a capstone civic project that can synthesize multiple preceding standards. The multicultural dimensions of civic participation are addressed in Standards 5.3 (tribal government), 5.7 (inclusive participation), 5.8 (diverse understandings of American identity), and 5.9 (community organizations).

#3 Std General

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Comment: *This strand is probably the most important when it comes to trying to help students become more civically minded and engaged. However, because of how many standards there currently are, these will be the ones that end up not being taught or skimmed over. Teachers will start with Strand 1 and move through chronologically in most cases. So the last month of the year when seniors are least engaged and often absent for activities, they will be gettin...*

RESPONSE: Strand 5 is the applied citizenship strand -- it is the strand most directly connected to students' lives as current and future civic participants. The writing team acknowledges that eleven standards is a substantial scope for a single strand and are working to streamline without losing important content. Standards 5.11 in particular is designed as a capstone civic project that can synthesize multiple preceding standards. Instructional resource materials will encourage teachers to introduce Strand 5 themes and projects earlier in the year, embedding civic participation activities throughout all strands rather than treating them as a capstone-only topic.

#4 Std General

Comment: *In my opinion, this strand represents the real purpose and goal of the course. This core as a whole reads a lot more like a college syllabus than a core set of standards. I would recommend reviewing the standards as a committee and eliminating those that are not truly core standards.*

RESPONSE: Thank you for this affirming feedback -- the writing team agrees that Strand 5 represents one of the course's most important outcomes. The writing team has carefully considered concerns about the volume of standards and level of rigor. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate. Strand 5 is the applied citizenship strand -- it is the strand most directly connected to students' lives as current and future civic participants.

#5 Std General

Comment: *You basically have nothing about how government and businesses/billionaires interact with regard to taxation. How the economy is regulated by the government. Or about foreign policy decisions like war. Or propaganda and the government, or the budget of the government.*

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RESPONSE: Government budgeting, taxation, and debt are explicitly addressed in Standard 5.4. The role of economic stakeholders and private interests in shaping policy is within the scope of Standard 5.3's examination of how citizens engage with government at multiple levels, and Standard 5.11's civic action project may address local economic policy issues. Foreign policy and international relations are outside the scope of this course as mandated by HB 381, which focuses specifically on constitutional government and citizenship. Teachers may address these topics at their discretion.

#6 Std 5.2, 5.1 | Add | Concepts or Ideas

Comment: *Utah's direct-democracy tools (initiative, referendum, and recall). Standard 5.1 requires analysis of the Utah Constitution's structure, and 5.2 covers how a bill becomes law at state/local levels. However, there is no explicit requirement to examine Utah's initiative and referendum process or recall provisions. These are among the most powerful ways ordinary citizens practice constitutional citizenship in Utah.*

RESPONSE: This is a substantive and well-grounded suggestion. Utah's initiative and referendum process -- allowing citizens to propose and vote on legislation directly -- is one of the most significant forms of direct civic participation available to Utahns and is directly relevant to Standard 5.1's examination of the Utah Constitution's structure and Standard 5.7's examination of how citizens participate in elections and campaigns. This will be noted for instructional resource development as essential Utah-specific civic content.

#7 Std 5.6, 5.7

Comment: *Jury service and other core civic obligations. Standard 5.6 covers oaths and 5.7 covers voting, but there is no mention of jury duty. Most civics standards pair voting with jury service as the two universal adult responsibilities of citizenship.*

RESPONSE: This is a well-grounded and commonly made observation. Jury service -- guaranteed by the Sixth and Seventh Amendments to the U.S. Constitution and by Article I, Section 10 of the Utah Constitution -- is one of the most direct forms of civic participation available to citizens and is routinely paired with voting as a core civic obligation. This will also be noted for instructional resource development.

#8 Std 5.7, 5.9

Comment: *Role of interest groups, PACs, and lobbying in the political process. Standards 5.7 and 5.9 touch related ideas, but there is no requirement to examine how organized interest*

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groups, political action committees (PACs), and lobbying actually influence legislation, elections, and public policy at the state and local levels.

RESPONSE: Political parties, interest groups, the media, and other linkage institutions are addressed throughout Strand 5. Political parties and the candidate nomination process are in Standard 5.7. Media is addressed in Standard 5.10. Civic and community organizations are addressed in Standard 5.9.

#9 Std 5.7

Comment: *Campaign finance rules and their impact on elections. Standard 5.7 requires analysis of candidate nomination, campaigns, and voting, but nothing addresses how campaigns are funded, disclosure requirements, contribution limits, or the effects of money in politics.*

RESPONSE: Campaign finance -- including contribution limits, disclosure requirements, and the role of money in elections -- is an important dimension of understanding how campaigns and elections actually function. Standard 5.7's examination of campaigns and the candidate nomination process provides the appropriate framework for addressing campaign finance.

#10 Std 5.2 | Delete | Concepts or Ideas

Comment: *Standard 5.2: Students will analyze how a bill becomes a law, how that law is enforced, and how it is applied and interpreted, at the state and local levels. This is already covered in several classes prior to this class.*

RESPONSE: Standard 5.2 and Standard 3.9 both examine how a bill becomes a law, how it is enforced, and how it is interpreted -- but they are distinct in scope. Standard 3.9 addresses these processes at the federal level; Standard 5.2 addresses them at the state and local levels. Understanding how the same civic process functions differently at different levels of government is itself an important learning objective for this course and for Standard 5.1's examination of federalism. The standards are not redundant -- they are parallel applications of the same framework at different governmental levels.

#11 Std 5.4

Comment: *How do you specifically want teachers to teach Standard 5.4: Students will analyze how budgeting, taxation, and debt relate to government? What is the scale?*

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RESPONSE: Standard 5.4's examination of budgeting, taxation, and debt is intentionally flexible in scope -- it encompasses federal, state, and local government finance, with teachers having discretion in selecting which level(s) to examine in depth. The standard's analytical goal is for students to understand how government finances connect to public services and civic priorities.

#12 Std 5.5, General

Comment: *Are students using required texts for these standards? Many of them do not have an attached reading. For example, Standard 5.5 about qualifications and roles of local elected officers.*

RESPONSE: The Utah State Constitution and the U.S. Constitution are the required primary source documents for all of Strand 5 -- they are listed in the strand's primary sources section and apply to all standards in the strand. For standards like Standard 5.5 that address specific local elected offices, the relevant primary sources are the constitutional provisions governing those offices (particularly the Utah Constitution, Article IV, and relevant local government statutes). Instructional resource materials will be important for this strand.

#13 Std General

Comment: *Again, 11 standards seems EXCESSIVE.*

RESPONSE: The expanded scope reflects the expanded time. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate. Standards 5.11 in particular is designed as a capstone civic project that can synthesize multiple preceding standards.

#14 Std General

Comment: *This strand might be the most egregious in terms of what needs to be taught in a school year. Each standard here will require multiple class periods, and with a combined 47 standards throughout the class, this has 12 more standards than the next social studies class, and 28 more than the current half-year course. It is NOT POSSIBLE to teach all of these standards in a single year.*

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RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate. Strand 5 is the applied citizenship strand -- it is the strand most directly connected to students' lives as current and future civic participants.

#15 Std 5.1

Comment: *Standard 5.1 -- this should not be the first time federalism is mentioned or taught. It may be helpful to integrate federalism into the Constitutional Convention-related standards in Strand 2 so that we can revisit it in Strand 5.*

RESPONSE: Federalism is not introduced for the first time in Standard 5.1 -- it is foundational content in Standard 2.6 (principles and practice of federalism, examined through Federalist Nos. 39 and 45 and the Tenth Amendment) and is referenced throughout Strand 3's examination of constitutional structure. Standard 5.1 returns to federalism in the context of the Utah Constitution and applied citizenship -- asking students to analyze how divided authority functions in practice at the state and local levels.

#16 Std 5.7

Comment: *Standard 5.7 -- Should the Electoral College also be included in this, or are we covering it in Strand 3 when we cover Article II?*

RESPONSE: The Electoral College is examined in Standard 3.4's study of Article II and the presidential selection system. Standard 5.7 focuses on civic participation at the state and local levels -- political parties, caucuses, conventions, candidate nomination, voter registration, and elections. The two standards are complementary: Standard 3.4 addresses the constitutional design of presidential elections, while Standard 5.7 addresses how citizens actually participate in the electoral process in Utah.

#17 Std 5.9

Comment: *Standard 5.9 -- Instead of saying 'community groups, religious organizations, and other civic associations' you could instead use the sociology term 'third place' to allow for the flexibility of change in our society of what places of community could be and become for our students.*

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RESPONSE: The concept of 'third places' -- community spaces outside home and work where civic social bonds are formed -- is a useful contemporary framing for the types of associations Standard 5.9 addresses.

#18 Std General

Comment: *It seems too vague and big. Too much to cover.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate. Strand 5 is the applied citizenship strand -- it is the strand most directly connected to students' lives as current and future civic participants.

#19 Std General

Comment: *Linkage Institutions should have their own standard -- political parties, interest groups, voting, and the media. Linkage institutions are embedded throughout other standards but it can be confusing to students when they don't know the difference between Republicans and Democrats or where interest groups come into play. I would have a clear standard on linkage institutions, preferably earlier in the curriculum.*

RESPONSE: Political parties, interest groups, the media, and other linkage institutions are addressed throughout Strand 5. Political parties and the candidate nomination process are in Standard 5.7. Media is addressed in Standard 5.10. Civic and community organizations are addressed in Standard 5.9.

#20 Std General

Comment: *There should be a civic engagement requirement -- attend a legislative session (bus provided), attend a school district meeting, attend a city council meeting, etc.*

RESPONSE: Civic engagement experiences -- attending a legislative session, school board meeting, city council meeting, or community event -- are exactly the kinds of applied

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citizenship activities Standard 5.11 and Standard 5.3 are designed to support. Standards describe what students should know and be able to do; whether and how to arrange specific civic participation experiences are curricular decisions made at the local education agency level.

#21 Std General | Delete | *Concepts or Ideas*

Comment: *There are too many standards.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by HB 381. The expanded scope reflects the expanded time. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate. Strand 5 is the applied citizenship strand -- it is the strand most directly connected to students' lives as current and future civic participants.

#22 Std 5.9, 5.8

Comment: *Strand 5 is strong, but Standards 5.8 and 5.9 may come across as promoting a single view of citizenship. It would be helpful to more clearly include space for different perspectives and individual viewpoints.*

RESPONSE: Standard 5.8 asks students to reflect on and write about what it means to be an American by drawing on the Declaration of Independence, the U.S. Constitution, and the principles studied throughout the course. The standard's intent is to be a culminating synthesis, not a loyalty test. Standard 5.9's examination of families, community groups, religious organizations, and other civic associations is intended to be descriptive and analytical -- examining the role these institutions play in developing civic capacity -- not prescriptive.

#23 Std General

Comment: *The word 'virtues' should not be used in this context. It feels overreaching on what a government lesson should teach. Analyzing virtues is not measurable and makes no sense in this context. It's facts. Facts only.*

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RESPONSE: The civic virtues referenced in this strand are drawn from the constitutional and founding documents studied throughout the course. They are presented as historical and political concepts for analysis, not as personal moral requirements to be assessed individually. Students demonstrate understanding by identifying and analyzing these concepts in primary source documents and applying them to civic contexts.

#24 Std General

Comment: *Again, isn't 5.2 already addressed in others? Several of the standards here are identical to other areas of this course. It feels like Strand 5 is the old Government course just in a single strand. Did I also miss responsibilities of citizenship, such as serving on a jury?*

RESPONSE: Standard 5.2 and Standard 3.9 both examine how a bill becomes a law, how it is enforced, and how it is interpreted -- but they are distinct in scope. Standard 3.9 addresses these processes at the federal level; Standard 5.2 addresses them at the state and local levels. Understanding how the same civic process functions differently at different levels of government is itself an important learning objective for this course and for Standard 5.1's examination of federalism.

#25 Std General

Comment: *Political socialization should be added.*

RESPONSE: Political socialization -- the process by which individuals develop their political beliefs, values, and civic identity through family, peers, schools, media, and community -- is an important political science concept for this strand. Standard 5.9's examination of families, community groups, and civic associations directly engages the agents of political socialization, and Standard 5.10's examination of media literacy addresses how media shapes political attitudes.

#26 Std General | Change | Guiding Questions

Comment: *2nd guiding question -- change 'political process' to 'political participation.'*

RESPONSE: Thank you for this specific and well-grounded suggestion.

#27 Std 5.2

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Comment: 5.2 -- should be covered when we discuss branches, not here.

RESPONSE: Standard 5.2 and Standard 3.9 both examine how a bill becomes a law, how it is enforced, and how it is interpreted -- but they are distinct in scope. Standard 3.9 addresses these processes at the federal level; Standard 5.2 addresses them at the state and local levels.

#28 Std General

Comment: Importance of voting and seeing your will expressed through elected officials.

RESPONSE: Voting -- including how to register, how to become an informed voter, and how elected officials represent citizens' interests -- is the central focus of Standard 5.7. The connection between voting and civic expression is also addressed in the strand's guiding questions, which explicitly ask 'What does it mean to be an active and informed voter?'

#29 Std General

Comment: Strand 5 includes many meaningful and important goals, particularly in its focus on civic participation, media literacy, and helping students connect what they are learning to their lives outside the classroom. However, the main concern is not the value of the content, but the amount of it and how it is structured.

RESPONSE: Thank you for this affirming and balanced feedback. The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#30 Std 5.7

Comment: Standard 5.7 (or as a standard on its own) should include instruction on Utah's Caucus/Convention system. With the passage of HB312 School Curriculum and Standards Modification (line 458) that adds the study of 'the caucus and convention system,' these standards would be the perfect place to add it.

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RESPONSE: Utah's caucus and convention system is explicitly required content in Standard 5.7, which requires students to analyze 'the candidate nomination and selection processes in caucuses and conventions.' This is already in the standard.

#31 Std General

Comment: *This standard is good. It is what I thought the class was going to be. Standard 5 could take a whole 12 weeks to teach as you move into Standards 5.8, 5.9, and 5.10. 5.11 seems like an assessment option but with how much is being taught in the class it might not get covered.*

RESPONSE: Strand 5 is the applied citizenship strand -- it is the strand most directly connected to students' lives as current and future civic participants. The writing team acknowledges that eleven standards is a substantial scope for a single strand. Standard 5.11 is intentionally designed as a capstone civic project -- not a traditional content standard that requires standalone instructional time. It is most effectively implemented as an ongoing thread throughout Strand 5, with students identifying their local problem early and developing their proposal over multiple weeks as they study the relevant standards. Instructional resource materials will provide guidance on how to implement Standard 5.11 as a semester-long project rather than a final-week exercise.

#32 Std General

Comment: *A lot of the standards in this strand are the state/local version of things we've already discussed at the federal level. I would lean toward teaching those concepts close together so we can compare and contrast those systems, but the introduction clearly separates them into separate semesters.*

RESPONSE: The parallel structure -- federal-level constitutional framework in Strands 1-3 (first semester) and state/local application in Strand 5 (second semester) -- is intentional. Students first understand the federal constitutional design before examining how it is mirrored, extended, and differentiated at the state and local levels. This sequence reflects the logic of federalism itself: the federal framework establishes the floor of constitutional rights and structures; state and local governments operate within that framework while having their own distinct constitutional identities.

#33 Std 5.7

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Comment: *Standard 5.7 should include instruction on issues facing participation like gerrymandering and voter suppression. As well as the impact of social media on civic participation.*

RESPONSE: Gerrymandering, voter suppression, and the impact of social media on civic participation are important contemporary dimensions of the civic participation examined in Standard 5.7. The standard's focus on 'becoming informed voters' and the democratic process implicitly encompasses these challenges. These topics will be highlighted in instructional resource materials as important applied content for Standard 5.7.

#34 Std General

Comment: *Really good with federalism and a dedicated place to discuss local, state, and federal government. I feel like Linkage Institutions are missing -- political parties, media, and interest groups. Money in elections and campaign finance are referenced but wondering if it would make sense to have a 6th strand to really focus on a few of these things.*

RESPONSE: Political parties, interest groups, the media, and other linkage institutions are addressed throughout Strand 5. Political parties and the candidate nomination process are in Standard 5.7. Media is addressed in Standard 5.10. Civic and community organizations are addressed in Standard 5.9. The writing team notes the suggestion that linkage institutions -- political parties, interest groups, and media -- merit dedicated treatment. Whether this is best addressed by strengthening existing Strand 5 standards or by adding content is a question the writing team will consider for future revision cycles.

#35 Std General

Comment: *I feel like this is pushing a religious agenda, specifically mentioning 'faith groups.' Should we also include other groups of people, such as tribes?*

RESPONSE: The writing team has grounded the language of these standards in the historical record and the primary sources required by HB 381. Where language has been perceived as reflecting a particular viewpoint, we have reviewed it for clarity, precision, and balance. The course is designed to develop students' capacity for critical thinking and evidence-based civic argument. The guiding questions throughout each strand are intentionally open-ended to support genuine civic inquiry. Standard 5.9 examines the role of 'families, community groups, religious organizations, and other civic associations' -- religious organizations are named as one type of civic association among several, not as uniquely privileged. The

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standard's purpose is to examine how all these associations contribute to civic capacity and social capital. Standard 5.3 explicitly includes tribal governments as a form of self-government students must examine.

#36 Std 5.1

Comment: *Strand 5, Standard 5.1: Language should be added to analyze the role of religious history and the concept of religious liberty at both the national and Utah state levels.*

RESPONSE: Utah's unique religious history and the role of religious liberty in the state's constitutional development are important context for Standard 5.1's comparison of the Utah and U.S. Constitutions. The Utah Constitution's religious liberty provisions -- and their relationship to Utah's particular history -- provide a meaningful point of comparison with the First Amendment. This will be noted for instructional resource development.

#37 Std 5.10

Comment: *Standard 5.10 misses a key aspect of understanding media and its role in politics. Perhaps you could include another strand regarding the political influence of media on the public, and address the idea that news sources and social media are businesses selling a product and how that affects the information being fed to citizens.*

RESPONSE: Standard 5.10 addresses media literacy -- students analyze the role of media in educating citizens and influencing their views, and the responsibility of citizens to evaluate media sources for accuracy, bias, and logical fallacies. The writing team acknowledges that the current scope of Standard 5.10 may not fully address the contemporary media environment, including social media, algorithmic content curation, AI-generated information, and propaganda. Instructional resource materials will address these modern dimensions of media literacy in depth.

#38 Std General

Comment: *It may be nice to have something about serving on a jury and how to be a good juror.*

RESPONSE: Jury service is one of the most direct forms of civic participation available to adult citizens -- guaranteed by the Sixth and Seventh Amendments and by the Utah

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Constitution. Instructional resource materials will address how to be an informed and effective juror as part of the civic participation skills this standard develops.

#39 Std General

Comment: *More discussion on local government, the convention and caucus system in Utah, and how to participate in city councils, etc., could be beneficial.*

RESPONSE: Local government participation -- including understanding city councils, school boards, and local elected offices -- is addressed in Standard 5.5's examination of local elected officers and Standard 5.3's examination of self-government at the town, county, and municipal levels. Utah's caucus and convention system is specifically required in Standard 5.7.

#40 Std General

Comment: *More emphasis on political science principles.*

RESPONSE: Political science concepts -- including political socialization, social capital, linkage institutions, and electoral analysis -- are embedded throughout Strand 5. Standard 5.7 draws on electoral political science, Standard 5.9 engages social capital theory, and Standard 5.10 addresses media influence on political attitudes. Instructional resource materials will explicitly identify the political science frameworks underlying each standard, helping teachers with political science backgrounds connect the standards to the field's core concepts. Standards describe what students should know and be able to do -- they do not prescribe specific instructional activities, lesson formats, or supplemental materials beyond what is required by HB 381.

#41 Std General

Comment: *Way too many standards. Is this a college class? Feels like it.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-502.5. The expanded

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scope reflects the expanded time. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate.

#42 Std General

Comment: *Again, this strand has a lot in it. Too much to cover effectively. Also, what materials are out there to support teachers in helping their students learn about local government?*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by HB 381. The expanded scope reflects the expanded time. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate. The writing team acknowledges that teacher support materials for local government content are particularly important -- many teachers are more familiar with federal government than with Utah's specific governmental structures. Instructional resource materials will include resources on Utah local government, links to the Utah Legislature's website, the Utah League of Cities and Towns, and other state-specific civic resources to support teachers in teaching Standards 5.1 through 5.5.

#43 Std General

Comment: *Major Concern #1: The standards strongly emphasize constitutional loyalty/oaths/reflection. This could risk becoming civic nationalism rather than civic education. Standards should ensure students are encouraged to critically evaluate constitutional systems and institutions rather than merely affirm loyalty to them.*

RESPONSE: The writing team has grounded the language of these standards in the historical record and the primary sources required by Utah Code 53E-4-205.2. Where language has been perceived as reflecting a particular viewpoint, we have reviewed it for clarity, precision, and balance. The course is designed to develop students' capacity for critical thinking and evidence-based civic argument. The guiding questions throughout each strand are intentionally open-ended to support genuine civic inquiry. Standard 5.6's examination of constitutional oaths is an analytical exercise -- students examine what these oaths commit public officials and citizens to, what civic virtues they require, and what it means to uphold them. The standard is not designed to require personal loyalty affirmation but to develop students' understanding of constitutional obligation as a civic concept.

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#44 Std 5.8

Comment: *Major Concern #2: Standard 5.8 asks students to reflect on 'what it means to be an American.' This standard should clarify that students may critically explore diverse understandings of American identity rather than be guided toward any singular prescribed conception.*

RESPONSE: Standard 5.8 asks students to reflect on and write about what it means to be an American by drawing on the Declaration of Independence, the U.S. Constitution, and the principles studied throughout the course. We will review Standard 5.8 to ensure its language clearly invites students to develop their own evidence-based understanding of American identity -- grounded in the constitutional documents -- rather than to arrive at any predetermined answer. The standard's intent is to be a culminating synthesis, not a loyalty test.

#45 Std General

Comment: *Major Concern #3: Media literacy section should be expanded. Suggested Addition: Include analysis of misinformation, propaganda, algorithmic bias, disinformation campaigns, and the psychological mechanisms influencing political/media consumption.*

RESPONSE: Standard 5.10 addresses media literacy -- students analyze the role of media in educating citizens and influencing their views, and the responsibility of citizens to evaluate media sources for accuracy, bias, and logical fallacies. Instructional resource materials will address these modern dimensions of media literacy in depth.

#46 Std General

Comment: *This strand is the MEAT of the course. There are WAY too many standards. This really should be simplified and made more active for the students.*

RESPONSE: The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Utah Code 53E-4-205.2. The expanded scope reflects the expanded time. The writing team has reviewed standards for opportunities to streamline language and has made revisions where appropriate. Strand 5 is

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the applied citizenship strand -- it is the strand most directly connected to students' lives as current and future civic participants

#47 Std 5.1, 5.3

Comment: *It should be more like this: The Federalism Power-Map. Map Your Government. Identify a specific local issue and 'map' exactly which level of government has the power to fix it. You'll draft a recommendation to the correct office.*

RESPONSE: The 'Federalism Power-Map' activity described here -- identifying a local issue and determining which level of government has authority to address it, then drafting a recommendation -- is an excellent model for implementing Standard 5.1 and Standard 5.3 in an applied, active citizenship format. This is precisely the kind of instructional approach these standards are designed to support. Standards describe what students should know and be able to do -- they do not prescribe specific instructional activities, lesson formats, or supplemental materials beyond what is required by Utah Code 53E-4-205.2.

#48 Std 5.2, 5.4, 5.5

Comment: *The Local 'Law and Money' Audit. Trace a real piece of legislation currently moving through the Utah State Legislature or your City Council. You will attend (or watch) a public meeting, analyze how the proposed budget affects your community.*

RESPONSE: The 'Law and Money Audit' activity -- tracing real legislation, attending a public meeting, and analyzing budget impacts -- is an excellent applied implementation of Standards 5.2, 5.4, and 5.5. These are exactly the kinds of civic participation experiences Standards 5.2 through 5.5 are designed to develop. Standards describe what students should know and be able to do -- they do not prescribe specific instructional activities, lesson formats, or supplemental materials beyond what is required by Utah Code 53E-4-205.2. Instructional resource materials will include suggested activities of this format.

#49 Std 5.6, 5.8

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Comment: *The Oath and Identity Project. After studying these, you will write your own 'Personal Civic Statement' or digital essay that defines your individual responsibility to the Constitution.*

RESPONSE: The 'Personal Civic Statement' activity -- drawing on the oaths examined in Standard 5.6 and the reflection on American identity in Standard 5.8 -- is an excellent applied implementation of these standards. Instructional resource materials will include suggested activity formats of this kind.

#50 Std 5.7, 5.10

Comment: *The Political Playbook: Elections and Media. Research the candidate nomination process in Utah (from caucuses to the primary). Create a 'Voter's Guide' for your peers that explains how to register, how to evaluate media sources for accuracy and bias, and how to navigate the election process.*

RESPONSE: The 'Voter's Guide' project -- synthesizing knowledge of Utah's caucus system, candidate nomination, and media evaluation to produce a practical civic resource -- is an excellent applied implementation of Standards 5.7 and 5.10. This type of civic artifact production directly develops the informed voter skills that Standard 5.7 requires. Instructional resource materials will include this and similar civic production activities.

#51 Std 5.9, 5.11

Comment: *The Social Capital Challenge. Identify a real-world problem in your town. Collaborate with local stakeholders -- a business, a non-profit, or a city board -- to design a formal proposal. Show how 'social capital' (working through community groups) strengthens civic problem-solving.*

RESPONSE: The 'Social Capital Challenge' -- identifying a local problem, collaborating with community stakeholders, and designing a formal proposal -- is an excellent model for implementing Standard 5.11's capstone civic project. The integration of social capital theory from Standard 5.9 with the civic problem-solving of Standard 5.11 is precisely the kind of synthesis this strand is designed to produce. Instructional resource materials will use this and similar project frameworks as models for Standard 5.11 implementation.

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#52 Std General

Comment: *The draft for Standards 5.1 through 5.11 provides a useful transition from national theory to local application, but the language should be updated to move beyond a purely administrative view of state government.*

RESPONSE: The writing team acknowledges that Strand 5's language can sometimes read as administrative rather than civic -- describing how government functions rather than how citizens shape it. This will be considered for resource material.

#53 Std 5.3

Comment: *While Standard 5.3 mentions tribal governments, the standards should more clearly define tribal sovereignty as a distinct form of political authority that coexists with state and federal power, rather than treating it as a subset of local government.*

RESPONSE: Standard 5.3 explicitly includes tribal government alongside town, county, and municipal self-government. We will review the language of Standard 5.3 to more clearly signal that tribal governments operate under a distinct legal framework -- including treaties, federal Indian law, and tribal constitutions -- that coexists with but is not subordinate to state and local governmental authority. Instructional resource materials will address tribal sovereignty specifically.

#54 Std 5.2, 5.4

Comment: *When analyzing state and local budgets (Standard 5.4) and the 'bill to law' process (Standard 5.2), the language should be adjusted to include the influence of private interests and economic stakeholders. This ensures students understand that local policy is shaped not just by official procedures, but by the competing needs of different community groups and industries.*

RESPONSE: The influence of private interests, economic stakeholders, and advocacy groups on the legislative and budgetary process is an important dimension of how government actually functions and is within the scope of both Standard 5.2 and Standard 5.4. The writing team will consider whether language acknowledging the role of competing community interests in shaping local law and budgets can be added to these standards.

#55 Std 5.8, 5.9

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Comment: *The standards on citizenship and civic virtue (5.8 and 5.9) should be broadened to reflect a more inclusive, modern American identity. Instead of framing 'what it means to be an American' solely through the lens of historical documents, the language should encourage students to examine how diverse lived experiences and cultural backgrounds contribute to our national fabric.*

RESPONSE: Standard 5.8 asks students to reflect on and write about what it means to be an American by drawing on the Declaration of Independence, the U.S. Constitution, and the principles studied throughout the course. 5.8 invites students to develop their own evidence-based understanding of American identity -- grounded in the constitutional documents -- rather than to arrive at any predetermined answer. The standard's intent is to be a culminating synthesis, not a loyalty test. Standard 5.9's examination of families, community groups, and civic associations is already designed to encompass the full diversity of civic community in Utah -- including Indigenous, religious, cultural, and neighborhood organizations of all kinds.

#56 Std 5.11

Comment: *In Standard 5.11, the 'skills of everyday citizenship' should be updated to include critical media literacy as a primary tool for problem-solving. Students need to navigate the complex digital environment where local political debates and social movements now primarily take place.*

RESPONSE: Standard 5.10 specifically addresses media literacy -- evaluating sources for accuracy, bias, and logical fallacies. Standard 5.11's civic problem-solving capstone can naturally draw on Standard 5.10's media literacy skills, as identifying a local problem and proposing solutions in the contemporary environment requires navigating digital information.

#57 Std General

Comment: *I was so excited about this course mostly because of the perception that it would be adding a half a credit of applied citizenship. This strand is what gets close to that vision in my mind. But even then the language feels more about writing arguments for a teacher or reflecting on their own. The language doesn't feel 'Applied.'*

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RESPONSE: Standard 5.11 is specifically designed as an applied civic action standard -- identifying a real local problem and proposing real solutions to real civic and governmental bodies. The writing team will review Standard 5.8 in particular to consider whether its language can be revised to offer a broader range of civic expression formats beyond writing, and whether standards throughout Strand 5 can be strengthened to emphasize civic action alongside civic reflection.

#58 Std General

Comment: *I do already have a unit on participation and being a good citizen. I see things proposed here that would improve my unit. I don't believe that Strands 4 and 5 should occupy the same amount of time that Strands 1, 2, and 3 do. The balance is nowhere close. This should be a year-long class where the strands can be given the weight and time that allow justice to be done to the topics.*

RESPONSE: Thank you for this affirming feedback and for the constructive engagement with the strand's structure. Strand 5 is the applied citizenship strand -- it is the strand most directly connected to students' lives as current and future civic participants.

#59 Std General

Comment: *This does not mention how government was built for change and improvement. There's too many subjects attempting to be covered in this strand.*

RESPONSE: The idea that government is built for change and improvement -- through constitutional amendment (Standard 4.1), the legislative process (Standard 5.2), and civic participation (Standard 5.11) -- is foundational to this strand's approach. Standard 5.11's capstone civic project asks students to identify a real problem and propose solutions through the appropriate civic channels, directly embodying the principle that citizens can and should work to improve their government. The guiding question 'What civic skills and virtues are needed for both effective self-government and for limited, responsible governance?' also invites this reflection.

#60 Std 5.8

Comment: *Standard 5.8 -- The Declaration of Independence was mainly a breakup letter, so other documents need to be here.*

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RESPONSE: Standard 5.8 asks students to draw on 'the Declaration of Independence, the U.S. Constitution, and other principles from this course' -- the phrase 'other principles from this course' is intentionally broad, allowing students to draw on any of the primary sources and constitutional principles they have studied across all five strands. The Declaration of Independence is included because it articulates the natural rights and constitutional principles foundational to American identity, not because it is the only relevant document.

#61 Std General

Comment: *If you take my suggestion in removing Strand 4 you could add in the Bill of Rights to the suggested Primary Source reading for this strand.*

RESPONSE: The Bill of Rights is a required primary source examined in Standards 4.3 and 4.4 and remains relevant throughout Strand 5.

#62 Std General

Comment: *We need to have it more clearly laid out for what we expect teachers to cover as far as voting, lobbying, protest, etc. The standards are very broad and don't cover specifics.*

RESPONSE: The writing team acknowledges that Strand 5's standards are intentionally broader than those in Strands 1-4, to allow teachers flexibility in connecting constitutional principles to the specific civic context of their community and students. Instructional resource materials will provide some guidance.

#63 Std General

Comment: *Suggested text for the beginning of this section or a place like standard...
[comment appears incomplete]*

RESPONSE: Thank you for your engagement with these standards.

#64 Std 5.5

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Comment: *5.5: Teachers are encouraged to invite local leaders to visit their classrooms to support the application/learning of this Strand and share real-world experiences of local governance.*

RESPONSE: Inviting local elected officials and civic leaders to visit classrooms is an excellent strategy for making Standard 5.5's content on local elected offices immediately real and relevant to students.

#65 Std 5.6

Comment: *Could 5.6 be shortened? Also, the reflection piece could be removed as that is a task and not a standard.*

RESPONSE: The writing team acknowledges that Standard 5.6 is the longest single standard in Strand 5 and that its language could be streamlined. We will review Standard 5.6 for opportunities to consolidate its content.

#66 Std General

Comment: *Strand 5 should contain the severity and seriousness of the need for Americans to maintain their republic. Reagan's warning that 'freedom is never more than a generation from extinction' is a powerful lesson. How could you incorporate his warning into Strand 5?*

RESPONSE: Reagan's observation -- echoing the Founders' own warnings about the fragility of republican self-government -- captures an important theme of this strand and of the course as a whole. His speeches on civic responsibility and the perpetuation of constitutional government may be noted in instructional resource materials as recommended supplemental sources for Standard 5.8's reflection on American identity and constitutional citizenship.

#67 Std General

Comment: *Specifically should mention that voting is a right, not just a privilege.*

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RESPONSE: The distinction between voting as a constitutional right -- protected by the 15th, 19th, 24th, and 26th Amendments, and by Article I of the Utah Constitution -- and the older view of voting as a privilege extended by government is constitutionally important and historically significant.

#68 Std General

Comment: *I am seriously concerned that the current U.S. Gov strand on the U.S. and our relationship to the world is completely omitted from this curriculum. I am also concerned that the current U.S. Gov Strand on fiscal policies and decisions is also largely omitted.*

RESPONSE: Government budgeting, taxation, and debt -- the core of fiscal policy -- are addressed in Standard 5.4. The writing team acknowledges that fiscal policy receives less depth in this course than in the prior Government course's dedicated strand. Foreign policy and international relations are outside the scope of this course as mandated by Utah Code 53E-4-205.2, which focuses on constitutional government and citizenship. Teachers may address both topics at their discretion within the curricular flexibility these standards allow.

#69 Std General

Comment: *While I recognize the intent behind these standards, I have significant concerns regarding the repeated use of the term 'common good' throughout the document, particularly in Strand 5. As written, the term is undefined, inherently subjective, and open to widely varying interpretation.*

RESPONSE: The phrase 'common good' is drawn from the classical republican tradition foundational to this course -- used by Aristotle, Cicero, and the American Founders. Its appearance in Strand 5 invites students to engage with the enduring civic question of how citizens balance individual rights with shared responsibilities. Rather than providing a single definition, the course treats the common good as a concept that requires civic deliberation -- students examine competing understandings of the common good through the course's primary sources and guiding questions.

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#70 Std General

Comment: *Highlight and underscore the crucial importance of Native American contributions; it takes a village to give our children exactly what they need to flourish.*

RESPONSE: Standard 5.3 explicitly includes tribal government alongside town, county, and municipal self-government. The writing team acknowledges the concern that tribal sovereignty should be treated as a distinct and co-equal form of political authority rather than as a subset of local government. We will review the language of Standard 5.3 to more clearly signal that tribal governments operate under a distinct legal framework -- including treaties, federal Indian law, and tribal constitutions -- that coexists with but is not subordinate to state and local governmental authority. Instructional resource materials will address tribal sovereignty specifically. Instructional resource materials will ensure that Native American contributions to civic life -- including tribal governance, tribal civic organizations, and Indigenous perspectives on civic participation -- are addressed alongside other forms of civic community throughout Strand 5.

#71 Std 5.8

Comment: *5.8 is another task standard and should be removed. If kept, it needs to be modified. By stating that students have to 'write,' you limit the way students can choose to express their understanding. Why can't students create a painting, compose a song, or make a video?*

RESPONSE: This is a valuable observation. The requirement that students 'reflect on and write about what it means to be an American' in Standard 5.8 unnecessarily restricts the modes of expression through which students can demonstrate this understanding. The writing team will revise Standard 5.8 to replace 'write about' with broader language.

#72 Std 5.9

Comment: *5.9 should include schools or educational institutions as a group that plays a role in helping students develop the skills and dispositions necessary to be good citizens.*

RESPONSE: Schools and educational institutions are indeed among the most significant institutions through which civic skills and dispositions are developed -- they are themselves a form of civic community and an agent of political socialization. The writing team will

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consider adding schools and educational institutions to Standard 5.9's list of civic associations.

#73 Std 5.6

Comment: *Is analyzing all the oaths of the different state offices really needed?*

RESPONSE: Standard 5.6 uses constitutional oaths as a lens for examining what constitutional commitment means in practice -- for elected officials, military members, and naturalized citizens alike. The oaths are not studied for their own sake but because they crystallize in specific language what each role-holder commits to uphold. Students who understand what public officials are constitutionally obligated to do are better equipped to hold those officials accountable.

#74 Std General

Comment: *Now this would be the time to introduce the Utah State Constitution! Overall it is difficult to use sources across so many standards and to have to introduce so many different sources, authors, and historical contexts every time they are used.*

RESPONSE: The Utah State Constitution is introduced at the beginning of Strand 5 -- it is one of two required primary sources for the strand. The writing team acknowledges that managing multiple primary sources across the course can be challenging for both teachers and students. Instructional resource materials will include a consolidated guide to all required primary sources, organized by strand.

#75 Std 5.1

Comment: *The second part of 5.1 is unnecessary and should instead be incorporated into Strand 2.*

RESPONSE: Standard 5.1's examination of federalism and divided authority is not a repetition of Strand 2's foundational treatment of federalism -- it is federalism applied to the Utah constitutional context. After students have studied federalism as a founding principle (Standard 2.6) and as a constitutional structure (Standard 3.2), Standard 5.1 asks them to analyze how that federal-state relationship plays out in the specific case of Utah's

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constitution and governmental structure. This applied dimension is an important component of Strand 5's purpose.

#76 Std 5.3, 5.5

Comment: *Standards 5.3 and 5.5 could be combined.*

RESPONSE: Standard 5.3 examines how self-government is practiced across multiple levels of government -- town, county, municipality, and tribal -- asking students to analyze which level of government is best suited to address different issues. Standard 5.5 examines the specific qualifications and roles of local elected officers. They are related but distinct: Standard 5.3 is about governmental levels and authority; Standard 5.5 is about specific offices and the people who fill them. The writing team will review whether these two standards can be more clearly differentiated or more efficiently structured.

#77 Std 5.6 | Delete | Concepts or Ideas

Comment: *Why do students need to know about the oaths of offices? That seems irrelevant to their study of government.*

RESPONSE: Constitutional oaths represent the specific, formal commitments public officials and citizens make to the constitutional order -- they are among the most direct expressions of what constitutional fidelity means in practice. Standard 5.6 also asks students to reflect on their own relationship and responsibilities to the Constitution -- connecting the abstract concept of constitutional obligation to their own identity as citizens. Far from being irrelevant, oaths embody the constitutional principles at the heart of this course and help students understand what accountability to those principles looks like.

#78 Std 5.8

Comment: *5.8 is redundant.*

RESPONSE: Standard 5.8 is the strand's synthesis standard -- it asks students to draw on everything they have studied across the entire course to articulate their own grounded understanding of American constitutional identity

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#79 Std 5.9

Comment: *5.9 is too flowery. Can we focus on strong, government-focused vocabulary terms like 'political socialization' rather than long-winded standards that emphasize idealistic social-emotional learning targets?*

RESPONSE: The writing team appreciates this direct observation. 'Political socialization' is indeed the precise political science term for the process Standard 5.9 describes -- how families, schools, community groups, and media shape citizens' civic knowledge, skills, and dispositions.

#80 Std 5.2

Comment: *3.9 and 5.2 are similar. Is the purpose of 3.9 to talk federal and 5.2 state? Offer clarity of wording.*

RESPONSE: Standard 5.2 and Standard 3.9 both examine how a bill becomes a law, how it is enforced, and how it is interpreted -- but they are distinct in scope. Standard 3.9 addresses these processes at the federal level; Standard 5.2 addresses them at the state and local levels. Understanding how the same civic process functions differently at different levels of government is itself an important learning objective for this course and for Standard 5.1's examination of federalism. The standards are not redundant -- they are parallel applications of the same framework at different governmental levels.

#81 Std 5.10 | Change | Wording

Comment: *In Standard 5.10 I suggest starting with 'Students will value accuracy, and exhibit a willingness to do the work needed to ascertain the validity of information they access.'*

RESPONSE: The suggested opening -- emphasizing students' disposition toward accuracy and the active work of verification -- is a strong framing for Standard 5.10 and shifts the standard from a descriptive stance (analyzing media) to a dispositional and action-oriented one (valuing accuracy). The writing team will consider incorporating this language into a revised Standard 5.10. T

#82 Std General

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Comment: *I also suggest elaborating on media to include social media, online sources, propaganda, AI-generated information, as well as more established news outlets.*

RESPONSE: Standard 5.10 addresses media literacy -- students analyze the role of media in educating citizens and influencing their views, and the responsibility of citizens to evaluate media sources for accuracy, bias, and logical fallacies. We will review Standard 5.10 to consider whether its language can be expanded to more explicitly specifically include social media and AI-generated information.

#83 Std General

Comment: *This is the most important standard. I deeply appreciate Standards 5.10 and 5.11. I wish 5.10 was embedded throughout the whole course. Perhaps nothing is more pivotal to understanding modern American government than understanding how to select and evaluate sources.*

RESPONSE: Thank you for this affirming and thoughtful feedback. The writing team agrees that media literacy -- evaluating sources for accuracy, bias, and logical fallacies -- is foundational to all civic inquiry and ideally should be embedded throughout the course, not treated as a single late-strand standard. We will note this suggestion for instructional resource development, where media literacy skills can be integrated as a cross-strand competency beginning in Strand 1's primary source analysis (Standard 1.7) and continuing through all strands.

#84 Std General

Comment: *I think it looks pretty good. One addition I would make is to Standard 5 on state government. Students would benefit to learn about local government like the function/responsibilities of city councils, mayor, governor, state legislatures, the caucus system, etc. Many of my students tell me they wish they understood how the convention system, caucus, city councils, etc., all work.*

RESPONSE: Thank you for this affirming feedback. Local government -- city councils, school boards, county offices, the Utah State Legislature, and the caucus/convention system -- is

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the core content of Standards 5.3, 5.5, and 5.7. The Utah caucus and convention system is explicitly required in Standard 5.7. Utah's caucus and convention system is explicitly required content in Standard 5.7, which requires students to analyze 'the candidate nomination and selection processes in caucuses and conventions.' This is already in the standard.

#85 Std General

Comment: *The fifth unit feels like a hodge podge of standards put together. Some of them really belong in the second or third unit. 5.1 makes sense to go into Unit 2. 5.2 makes sense to go in Unit 3. 5.3 also makes sense to go with Unit 2 or Unit 3. Standard 5.4 used to have its own unit. Standard 5.5 should go with structure of government.*

RESPONSE: The writing team acknowledges that Strand 5's content -- including federalism (5.1), lawmaking (5.2), local self-government (5.3), budgeting (5.4), and local elected offices (5.5) -- could theoretically be distributed across earlier strands. The decision to group them in Strand 5 reflects a pedagogical choice: these standards are not primarily about constitutional theory but about applied citizenship at the state and local level.

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Rule/Statute: [Board Policy 3002](#)

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Semester Split Comments

Survey Prompt: Please provide any feedback regarding the proposal to include Strands 1-3 in one 0.5 credit and Strands 4-5 in another 0.5 credit.

#1

Comment: *This is fine. I think it actually is more effective to break strand 5 into thematic parts that are used as parts of projects in strands 1-4.*

RESPONSE: This is an interesting suggestion and teachers do have the right to do thusly in their classes. We now have 4 (not 5) strands, so it does make sense for Strand 4 to be taught during the final quarter of the year.

#2

Comment: *To make these goals reachable, the language should be updated to prioritize quality over quantity. Instead of requiring every single document, the standards could offer a list of "case studies" to choose from. This would give teachers the flexibility to slow down and ensure students truly understand the material. Simplifying the content would allow more space for practical activities, such as local problem-solving and civil discourse, that prepare students for life after graduation.*

RESPONSE: Great suggestions. We have reduced the number of standards substantially. This will allow teachers to slow down. Teachers may also opt to teach specific selections of various Federalist papers, for example, not the entire document.

#3

Comment: *There may be content retention issues if a student takes Strands 1-3 first semester junior year, and then strands 4-5 2nd semester senior year. Most likely LEAs may just opt to have seniors take the course concurrently.*

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RESPONSE: Yes. We suggest this too.

#4

Comment: *In smaller LEAs especially rural/charter allowing for the courses to be taken as non-concurrent semesters may be difficult for scheduling as you don't have as many teachers to cover schedules that have students taking a government class junior and senior year. And there is the issue of students with parent/work release that may be difficult to schedule. There should at least be language to allow for LEAs to be flexible on when these courses are taught, while still maintaining that strands 1-3 have to be taken before 4-5.*

RESPONSE: We think it is wisest for the two semesters to be taken consecutively (as did the public commentor just before this!). However, the requirement is that Strands 1-2 (now) be taken before 3-4.

#5

Comment: *Just need more about Bill of Rights and seperation of the 3 branches.*

RESPONSE: Those topics are included in the standards. These are very important, and we hope teachers do spend good time on both the Bill of Rights and the separation of branches.

#6

Comment: *The organization of these strands matters less to me than their content, though I would say it's odd that Strand 3 comes after 2.*

RESPONSE: Strand 2 and 3 are now mostly combined (a few things from Strand 2 have been moved into Strand 1).

#7

Comment: *I feel like the existing course was already too much content to reasonably get through. I question whether making this a full year class is really necessary or appropriate. I*

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also noticed that you removed the section on foreign policy/diplomacy which is critical to understanding our modern global world.

RESPONSE: Code 53E-4-205.2 requires that this year-long course be taught. Foreign affairs will be included in standards about the Legislative and Executive branches

#8

Comment: *1-3 there should be more of a mix between contemporary government connections to the founding era. Students need to see how the past impacts our government today; without these connections being explicitly taught to students relevance and interest will wane.*

RESPONSE: Yes, teachers should definitely include connections to our government today. But it is also critical that students understand our constitutional government so that they can properly evaluate our government today.

#9

Comment: *Highlight and underscore the crucial importance of Native American contributions; it takes a village, talking circles, be a blessing, care for our children and our elders.*

RESPONSE: The Iroquois Constitution is one of the required primary sources. Additional resource materials may be provided by the writing team.

#10

Comment: *Since I recommended creating a skill stand, I would have that strand apply to both semesters. Strand 2 should also be eliminated as the important historical elements mentioned in these standards can be mentioned as teachers work through the standards in Strand 3. This would better balance out the number of standards for each quarter.*

RESPONSE: Strand 2 and 3 are now mostly combined (a few things from Strand 2 have been moved into Strand 1).

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#11

Comment: *Could a Strand 6 be added to the second block that focuses on practical elements of civics--how to register to vote, how the process of serving on a jury works, how to become involved in a political party, etc.?*

RESPONSE: Such topics should be taught in Strand 4, Practicing Constitutional Citizenship.

#12

Comment: *And is there a place for current events in each of the standards? I think at the least a question could be added that prompts teachers to look for current events that involve constitutional principles.*

RESPONSE: Throughout the course, teachers should definitely include connections to current events

#13

Comment: *Finally, is there a place to teach students explicitly strategies for discussing controversial topics in productive ways? Could this be integrated somewhere into the standards (maybe in a 6th standard that focuses on practical civics).*

RESPONSE: This is very important. It's actually one reason we've included civic skills and virtues – because being able to talk civilly with those we disagree with is a civic skill. Being able to react in moderation to such ideas is a civic virtue. PLEASE include such strategies in your lesson planning, and help your students understand why civic skills and virtues are important in our society.

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Any Additional Comments

Survey Prompt: Please share any additional feedback regarding the draft standards for the proposed American Constitutional Government and Citizenship standards.

#	Public Comment	Final Response
2	Some of this new material seems to be too oriented in US History content, seems like token topics and content have been added and that these things are not as relevant to government as it is to US History	The course's foundational content — the Founders' primary sources, the debates of the Constitutional Convention, the Federalist and Anti-Federalist papers, the Lincoln-Douglas debates, the civil rights primary sources — is included because these documents are required by Code 53E-4-205.2 and because constitutional literacy requires engaging with the founding documents directly, not only with contemporary commentary about them. At the same time, the course is specifically designed so that students apply these foundational principles to modern concerns throughout each strand. Strand 4 (previously 5), for example, focuses entirely on applied citizenship in the Utah context. Instructional resource materials will support teachers in connecting historical primary sources to current events throughout the course. This should be an aspect of curriculum teaching these standards.
3	There are WAY too many standards and so much content for a single core set of standards for a high school senior. I think it is overly ambitious to expect high school seniors to learn all of this background knowledge in a single course. I believe there is a need to return to the draft and edit this down to a very intentional, meaningful set of core standards that are measurable and action	The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Even so, we have significantly reduced the quantity, from 47 standards to 31, a reduction by over one-third. Required primary source readings are intended to be studied as excerpts, not complete texts. Instructional resource materials will include pacing guidance, scaffolding, and differentiation strategies to help teachers manage the course's scope.

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	oriented, and where the "So what" factor is embedded all along the way.	The writing team also takes seriously the call for standards where the "So what?" factor is embedded throughout. The "So what?" element is definitely apparent in the Guiding Questions, too. Teachers should be sure to make the "So what?" apparent to their students through curriculum choices.
4	This proposal contains 47 individual standards, which is far more than any other year long social studies class. It is too many to effectively teach all of the required standards to a level where students are truly competent and understand what they have learned and how they apply to modern civic virtues. The class should contain a similar number of standards to other year long courses, 34 or 35 at most.	The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Even so, we have significantly reduced the quantity, from 47 standards to 31, a reduction by over one-third (and even less than your suggested 34 or 35).
5	There could be a little more focus on the Supreme Court and individual cases.	The role of Supreme Court interpretation in developing constitutional law is addressed throughout the course — multiple standards require examination of the interpretation of the First Amendment, the Bill of Rights, and the Reconstruction Amendments; other standards address the judiciary's interpretive authority. The writing team acknowledges that few specific landmark cases have been named as required content. Instructional resource materials will provide a recommended case list organized by amendment and civil rights topic, giving teachers clear options for each relevant standard.
6	In the mention of the 10th Amendment, it would be nice to see some discussion there of the balance with the powers granted in the First and Second articles of the Constitution.	The relationship between the Tenth Amendment's reservation of powers to the states and the powers enumerated in Articles I and II of the Constitution is foundational to the course's examination of federalism. This tension is addressed in Standard 2.6 (principles and practice of federalism, using Federalist Nos. 39 and 45 and the Tenth Amendment), Standard 3.2 (Congress's enumerated and implied powers), and Standard 3.4 (the president's enumerated powers). Instructional resource materials will ensure that the Tenth Amendment's relationship to the enumerated powers of both

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		Congress and the President is explicitly addressed as a central federalism question.
7	I think the last Unit needs some work.	The writing team has received extensive and specific feedback on this strand (formerly 5, now 4) from reviewers across the public comment period and has made a number of revisions. These include strengthening standards, broadening expression formats, and expanding the scope of media literacy. Instructional resource materials will give this strand particular attention, including pacing guidance, local government resources, and active citizenship activity formats.
8	I like this. The required readings are crucial for students to interact with. There are too many standards, but ultimately this is a great idea and written well. I think it will be invaluable for students to have this course.	Thank you for this affirming feedback. The writing team is pleased that the overall vision and structure of the course resonates with reviewers. The writing team has carefully considered concerns about the volume of standards and level of rigor. We have reduced the number of standards by one-third. This course is a full-year replacement for the current one-semester Government course, as mandated by Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Required primary source readings are intended to be studied as excerpts, not complete texts. Instructional resource materials will include pacing guidance, scaffolding, and differentiation strategies to help teachers manage the course's scope.
9	I think I have provided enough feedback for the State Board to consider. I do like using primary sources, and I do like giving the students the vision of why this is a two-part class rather than a one and done type of credit. Again, I feel like a lot of the standards would be more worthwhile if they didn't stress so much analysis and examination, but instead application, creation, reflection, and practice.	The writing team shares the concern that the standards, as written, lean heavily toward primary source analysis and written argumentation, and that more active civic engagement — attending public meetings, contacting officials, civic action projects — should be more explicitly embedded in the course. Standard 4.7 capstone civic project is specifically designed as applied civic action. Instructional resource materials will include a range of active learning formats for all strands, including civic simulations, community interviews, deliberative discussions, and civic production activities. The writing team has also reviewed standards throughout the document to include more varied skills language. The writing team acknowledges that “examine” appears

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		frequently throughout the standards and agrees that greater specificity in action verbs strengthens clarity of expected student performance. We have replaced “examine” with more precise verbs — such as 'analyze,' 'evaluate,' 'compare,' 'construct a claim,' 'describe,' and 'identify' — where doing so increases clarity. This is a confirmed revision across all strands.
10	Im concerned that the standards lean toward a single perspective rather than clearly encouraging open inquiry. I would like to see more emphasis on multiple viewpoints, critical thinking, and ensuring all students—regardless of background or learning style, can engage meaningfully with the material. Making the standards more neutral, measurable, and inclusive would strengthen them and better support all students.	The writing team acknowledges this important concern. The course is designed to develop students' capacity for the civic skills of critical thinking and evidence-based civic argument — not to transmit a single authorized interpretation of constitutional principles. The Anti-Federalist Papers (required throughout Strand 2), Frederick Douglass's critique of the Constitution (Standard 3.5), and the open-ended guiding questions throughout each stand are all specifically designed to ensure that students encounter competing perspectives and develop their own evidence-based civic views. Instructional resource materials will support teachers in facilitating genuine inquiry rather than directed conclusions. The writing team has grounded the language of these standards in the historical record and the primary sources required by Code 53E-4-205.2. Where language has been perceived as reflecting a particular viewpoint, we have reviewed it for clarity, precision, and balance. The course is designed to develop students' capacity for the civic skills of critical thinking and evidence-based civic argument — not to advocate for particular political conclusions. The guiding questions throughout each strand are intentionally open-ended to support genuine civic inquiry.
11	There are far too many repeating standards that aren't in chronological order. It focuses too much on the Constitution (which previously was a handful of standards inside a single strand) instead of actual application in life. There are also WAY too many standards. This has to be	The writing team has carefully considered concerns about the volume of standards. This course is a full-year replacement for the current one-semester Government course, as mandated by Code 53E-4-205.2. The expanded scope reflects the expanded time. Even so, we have significantly reduced the quantity, from 47 standards to 31, a reduction by over one-third. More importantly, the course's foundational content — the Founders' primary sources, the debates of the Constitutional Convention, the Federalist and Anti-Federalist papers, the

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	reduced down. There are several gaps from the current course to this course. I also think the average citizen doesn't need to know most of this: this course is a collegiate level course trying to get juniors involved. It reads like an AP Gov course, not a traditional core course. Kids will find it so boring. There are so many gaps. Because they shoved all the old standards into Strand 5, it abandons a lot. Tribal government is again thrown to the wayside. Presidential cabinet is abandoned. The word "election" doesn't even come up in the course. Nothing on political ideology that I can find. Nothing on budgeting, appropriations, etc. Nothing on foreign policy, economic dependence, etc. This course is essentially a solely Constitutional Gov course. The goal of the law was a .5 constitutional government course. This course is awful. I would be miserable teaching it.	Lincoln-Douglas debates, the civil rights primary sources — is included because these documents are required by Code 53E-4-205.2. This course is specifically designed so that students apply these foundational principles to modern concerns throughout each strand. This should be an aspect of curriculum teaching these standards. Strand 5, for example, was in no way a place to “shove all the old standards” — it was where we tried to include learning and action that prepare students for applied citizenship in the Utah context. Instructional resource materials will support teachers in connecting historical primary sources to current events throughout the course. Teachers, as professionals, will have curricular freedom to bring the issues of constitutional government alive for their students.
12	This course is mostly focused on historical aspects. We should be connecting them to current events/issues.	The course's foundational content — the Founders' primary sources, the debates of the Constitutional Convention, the Federalist and Anti-Federalist papers, the Lincoln-Douglas debates, the civil rights primary sources — is included because these documents are required by Code 53E-4-205.2 and because constitutional literacy requires engaging with the founding documents directly, not only with contemporary commentary about them. At the same time, the course is specifically designed so that students apply these foundational principles to modern

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		concerns throughout each strand. Strand 4 (previously5), for example, focuses entirely on applied citizenship in the Utah context. Instructional resource materials will support teachers in connecting historical primary sources to current events throughout the course. This should be an aspect of curriculum teaching these standards.
13	Overall, the proposed standards reflect a thoughtful and well-intentioned vision for civic education. The emphasis on foundational documents, constitutional principles, and civic engagement aligns strongly with the goals of preparing students to be informed and active participants in a democratic society. That said, from a curriculum and instructional design perspective, the primary concern is not the quality of the content, but the lack of prioritization, coherence, and feasibility across the standards as a whole. As currently written, the standards attempt to accomplish too many outcomes simultaneously, deep content knowledge, advanced analytical skills, historical application, and real-world civic engagement. Each of these is valuable, but when layered together across all strands without clear prioritization, the result is a	Thank you for this affirming and balanced assessment. The writing team is pleased that the overall vision of the course is resonating with reviewers. The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by CODE 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Required primary source readings are intended to be studied as excerpts, not complete texts. Instructional resource materials will include pacing guidance, scaffolding, and differentiation strategies to help teachers manage the course's scope. The writing team will use the public comment period's feedback to develop instructional resource materials that provide the prioritization and coherence guidance that teachers need to implement these standards effectively and feasibly.

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curriculum that is difficult to implement with depth and consistency. In practice, this often leads to uneven coverage, where some standards are emphasized while others are necessarily minimized. There is also a coherence issue across strands. Many of the same skills, such as analyzing sources, constructing arguments, and applying constitutional principles, are repeated in multiple places without clear differentiation in purpose or progression. This creates redundancy and can make it difficult for teachers to determine how skills should develop over time. A more vertically aligned approach, where skills are introduced, reinforced, and then applied at increasing levels of complexity, would strengthen the overall design. Additionally, the separation of content and application-based strands does not fully align with how students learn. Civic understanding is most effectively developed when knowledge and skills are integrated. For example, students build stronger analytical and civic reasoning skills when they are	
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consistently applying those skills while learning about foundational documents, institutions, and historical developments, not when those skills are isolated into separate expectations. Another important consideration is instructional depth. Many of the topics included, such as the Federalist and Anti-Federalist debates, the structure and function of each branch, and the development of civil rights and liberties, require sustained engagement in order for students to truly understand their significance. These are not topics that lend themselves to brief coverage. Without a more focused set of priorities, there is a risk that these essential concepts will be addressed at a surface level. The foundation of these standards is strong, but refining the structure to improve coherence, reduce overload, and prioritize key learning outcomes would make them significantly more effective and more realistic to implement in the classroom. Ultimately, a more focused and aligned set of standards would better support teachers in	
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	delivering high-quality instruction and would lead to deeper, more meaningful learning for students.	
14	Please include current issues standards in both semesters strands. Please ensure citizenship topics or the bill of rights are included in both semesters, as that is what students are more interested in. Please remove standards which are more about learning history than learning about our constitution, our government, or how to participate in it. And last, please move standards with similar topics near each other. Part of 3.5 should be in strand 5 and 3.10 should be in strand 1. And 5.2 should be near 3.3. Also, I didn't notice anything about redistricting or the electoral college. Those should be in some standards.	The course's foundational content — the Founders' primary sources, the debates of the Constitutional Convention, the Federalist and Anti-Federalist papers, the Lincoln-Douglas debates, the civil rights primary sources — is included because these documents are required by Code 53E-4-205.2 and because constitutional literacy requires engaging with the founding documents directly, not only with contemporary commentary about them. At the same time, the course is specifically designed so that students apply these foundational principles to modern concerns throughout each strand. Strand 4 (new numbering), for example, focuses entirely on applied citizenship in the Utah context. Both gerrymandering and (re)districting are applicable to Standard 4.4. Instructional resource materials will support teachers in connecting historical primary sources to current events throughout the course. This should be an aspect of curriculum teaching these standards. But other standards call upon students not only to gain civic knowledge but also civic skills, virtues, and dispositions. Teachers have professional freedom to teach the standards in the order that makes sense to them. We created our outline and order based on the categories specified in Code 53E-4-205.2
15	The amount of standards for a school year is unrealistic. There is no way a teacher could complete this amount of instruction effectively. Strand 5 is the best strand but there is so much information. There is a large focus on the history of the creation of the constitution but not enough focus on how it is applied. It's	The writing team has carefully considered concerns about the volume of standards and level of rigor. We have significantly reduced the quantity, from 47 standards to 31, a reduction by over one-third. The course's foundational content — the Founders' primary sources, the debates of the Constitutional Convention, the Federalist and Anti-Federalist papers, the Lincoln-Douglas debates, the civil rights primary sources — is included because these documents are required by Code 53E-4-205.2 and because constitutional literacy requires engaging with the founding

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	important to know both, but our students should be learning how to engage with the government in modern times. As written this has made a senior level class super boring and noneffective.	documents directly, not only with contemporary commentary about them. At the same time, the course is specifically designed so that students apply these foundational principles to modern concerns throughout each strand. Strand 4 (previously 5), for example, focuses entirely on applied citizenship in the Utah context. Instructional resource materials will support teachers in connecting historical primary sources to current events throughout the course. This should be an aspect of curriculum teaching these standards.
16	Overall the course is pretty good, it is broken down well. There does seem to be a few religion based things early that are interesting to me and there really should be a focus on Landmark Supreme Court Cases, especially with the amount of documents that are listed and not to have any cases listed seems a little weird to me.	You are correct. Standard (now) 1.3 examines diverse colonial religious traditions that influenced the American Founding. The role of Supreme Court interpretation in developing constitutional law is addressed throughout the course — multiple standards require examination of the interpretation of the First Amendment, the Bill of Rights, and the Reconstruction Amendments; other standards address the judiciary's interpretive authority. The writing team acknowledges that few specific landmark cases have been named as required content. Instructional resource materials will provide a recommended case list organized by amendment and civil rights topic, giving teachers clear options for each relevant standard.
17	Our district already requires 3.5 social studies credits, so this is going to be difficult for us to incorporate, but we will work that out. But these expectations are WAY extrememe. There are TOO many standards for this course as it is currently written.	The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Even so, we have significantly reduced the quantity, from 47 standards to 31, a reduction by over one-third (and even less than your suggested 34 or 35).
18	The proposed standards contain many valuable elements and commendably	The writing team notes the call for a more explicit emphasis on democratic inquiry, analysis, and critical engagement. The course is designed to develop students' capacity for the civic skills of critical

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	emphasize constitutional literacy and civic engagement. However, the standards would be strengthened by more consistently framing civic education around democratic inquiry, balanced analysis, and critical engagement rather than moral prescription or ideological affirmation. Civic education is most effective when students are taught not merely what to think about democracy and constitutionalism, but how to think critically, independently, and responsibly within a democratic society. Furthermore, students should examine threats to constitutional democracy from multiple directions, including authoritarian movements and anti-democratic tendencies across ideological contexts (e.g., fascism, communism, populist right-wing and left-wing authoritarianism, political extremism, and democratic backsliding), so that civic education remains balanced and historically comprehensive.	thinking and evidence-based civic argument — not to transmit a single authorized interpretation of constitutional principles. The Anti-Federalist Papers (required throughout Strands 2 and 3), Frederick Douglass's critique of the Constitution (Standard 4.5), and the open-ended guiding questions throughout each strand are all specifically designed to ensure that students encounter competing perspectives and develop their own evidence-based civic views. Instructional resource materials will also support teachers in facilitating genuine inquiry rather than directed conclusions. We agree with the core principle articulated here: civic education is most effective when it develops students' capacity to think critically and independently, not when it transmits a prescribed civic worldview. The writing team will review language throughout the document that may read as prescriptive rather than inquiry-oriented, and will make revisions where appropriate.
19	I appreciate the intent behind these standards and the focus on strengthening civic knowledge through foundational documents and	Thank you for your positive feedback on the draft of the standards, as well as your suggestions. The course's foundational content — the Founders' primary sources, the debates of the Constitutional Convention, the Federalist and Anti-Federalist papers, the Lincoln-Douglas debates, the civil rights primary sources — is

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constitutional principles. There are definitely some strengths here, especially the clearer structure and the emphasis on argumentation and primary sources. I also think there is real value in helping students understand how and why our government was formed, since that foundation matters. At the same time, compared to the current standards, this feels much more focused on the history and foundations of government rather than how it actually works today. While there is some attention to how the Constitution has developed over time and what it means to participate as a citizen, those ideas are mostly in the later strands and are not as central or consistently required (the two-semester breakdown is addressed separately). As a result, students may leave with an understanding of how government was formed, but less clarity on how it functions in practice or how they can participate in it. The current standards do a really good job supporting inquiry, project-based learning, and connections to current issues, which helps students see how government affects their lives and how they can be part of it, and that piece feels much less present here. In my experience,	included because these documents are required by Code 53E-4-205.2 and because constitutional literacy requires engaging with the founding documents directly, not only with contemporary commentary about them. At the same time, the course is specifically designed so that students apply these foundational principles to modern concerns throughout each strand. Strand 4 (previously 5), for example, focuses entirely on applied citizenship in the Utah context. Instructional resource materials will support teachers in connecting historical primary sources to current events throughout the course. This should be an aspect of curriculum teaching these standards.
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	students are far more engaged when they can connect what they're learning to current events and their own communities, not just historical documents. The goal of a government course should be to help students understand how government was formed, how it works today, and how they are a part of it. I'm also concerned about accessibility. The heavy use of complex primary sources and abstract ideas will be a challenge for many students, especially struggling readers (who make up a large portion of our students) and English learners, without clear guidance for scaffolding. Given the requirements of the law, these standards would be stronger if they more intentionally built in opportunities for students to connect foundational content to current issues and real-world civic participation at the same time they are learning it. As it's currently written, this feels like incomplete civics for what students need today. We still need to make sure students leave understanding how government works today and how they can participate in it.	
20	In general, less historical and more current and practical	The course's foundational content — the Founders' primary sources, the debates of the Constitutional Convention, the

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	approach make sense. The proposal seems lacking on understanding the practical application and workings of our current government.	Federalist and Anti-Federalist papers, the Lincoln-Douglas debates, the civil rights primary sources — is included because these documents are required by Code 53E-4-205.2 and because constitutional literacy requires engaging with the founding documents directly, not only with contemporary commentary about them. At the same time, the course is specifically designed so that students apply these foundational principles to modern concerns throughout each strand. Strand 4 (previously 5), for example, focuses entirely on applied citizenship in the Utah context. Instructional resource materials will support teachers in connecting historical primary sources to current events throughout the course. This should be an aspect of curriculum teaching these standards.
21	There are too many to have student learn any of them well, despite it being a year long course. Foundation work should be laid in 8th grade US History 1 (Skills such as perspective, sourcing, observation/inference are all needed for quality analysis and can be "played with" with exposure to them 8th grade. These are developmental skills and some will learn them faster than others but this early exposure and practice with the foundational skills will help them do better for this capstone type of class.	The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Even so, we have significantly reduced the quantity, from 47 standards to 31, a reduction by over one-third (and even less than your suggested 34 or 35). This course will continue to emphasize the civic skills of understanding various perspectives, sourcing, making observations and inferences.
22	My biggest concerns: 1. This class is written at a university course level. It is not written with 12th-grade students in mind. Students	The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and

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need theory and practice. It needs to be able to apply to them. It should be AN ACTIVE Class! 2. Standards are way too wordy, and complex. Give me a concept, and a skill. Have there be a variety of skills- and not just students aruging all the time. 3. The writers should go through and try to break these standards down- it is really hard. It is very overwhelming for a teacher. It needs to be simplified. 4. I am going to stress this again- if we want students to be active citizens- we need to have them go out and be doing it. They should be registering to vote, understanding the caucus and convention system, attending public meetings, help solving community problems and doing community serve. This is a GOLDEN opportunity for the students to do service learning. The standards rely heavily on "examining" historical documents, but lack Applied Civics. The language should be adjusted to encourage students to engage in active participation, such as working with local government or investigating community issues. Furthermore, the curriculum must address Digital	seniors approaching voting age, and the depth reflects that expectation. Even so, we have significantly reduced the quantity, from 47 standards to 31, a reduction by over one-third (and even less than your suggested 34 or 35). Additionally, the course is specifically designed so that students apply these foundational principles to modern concerns throughout each strand. Strand 4 (previously 5), for example, focuses entirely on applied citizenship in the Utah context. Please see Strand 4, espeically Standard 4.7, which is about applied civics. It now reads: " Students will practice the civic skills of everyday citizenship by identifying a local problem, considering the best resources, stakeholders, and civic or political organizations (such as businesses, city councils, chambers of commerce, community and religious organizations, etc.) for addressing it; and proposing possible solutions including which level of government is authorized and best equipped to handle different current issues and defend their rationale." Instructional resource materials will support teachers in connecting historical primary sources to current events throughout the course. This should be an aspect of curriculum teaching these standards.
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	Citizenship, specifically how algorithms and data privacy impact constitutional rights today. While "civic virtue" is important, it should be balanced with critical inquiry; students need to learn to advocate for systemic reform and to practice courageous dissent when the government fails to uphold its ideals.	
23	I think that there is too much of an emphasis on historical documents. This is intended to foster better citizenship within Utah's students, not to supplement an already-existing U.S. History curriculum. Nearly every historical document students are being asked to analyze was written by white men whose perspectives don't feel relevant to today's generation. I would find it burdensome to foster engagement and excitement with students when most standards require them to analyze a document that was written decades (if not centuries) ago.	The course's foundational content — the Founders' primary sources, the debates of the Constitutional Convention, the Federalist and Anti-Federalist papers, the Lincoln-Douglas debates, the civil rights primary sources — is included because these documents are required by Code 53E-4-205.2 and because constitutional literacy requires engaging with the founding documents directly, not only with contemporary commentary about them. At the same time, the course is specifically designed so that students apply these foundational principles to modern concerns throughout each strand. Strand 4 (previously 5), for example, focuses entirely on applied citizenship in the Utah context. Instructional resource materials will support teachers in connecting historical primary sources to current events and concerns throughout the course. This should be an aspect of curriculum teaching these standards.
24	I don't know if our feedback comes through question by question or if you see all of my feedback as a whole, so I am going to reiterate—This curriculum is well above a High	Current and previous high school teachers have been involved in this process at every step of the way. The combined social studies teaching experience of these teachers is over 60 years. We have appreciated their input.

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School level. Many of these readings and the type of analysis that is being asked of students were encountered in my Master's Degree program. It is well above the level that AP/CE requires for the Undergrad level course as well. I do not think it is realistic and believe that the Board should have High School teachers create the standards. I am happy to help with that effort. There is a LOT of crossover in what these standards require and what I already teach—and I already use primary source documents, many of which are listed in these standards—but the analysis and amount of reading that I provide already stretches my students. To try to get them to dive into sources that I didn't encounter until my post-graduate work seems more a disservice and the analysis being asked of them will not happen—it would have to be spoon fed to them. This is college or post-grad level content and I have SPED and ML students mixed in with my regular students. AP and CE students are in other classes where the content is already more challenging—but still not to the level of some of what is being proposed here. I have the highest regard for the Center for Constitutional	The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Even so, we have significantly reduced the quantity, from 47 standards to 31, a reduction by over one-third. Required primary source readings are intended to be studied as excerpts, not complete texts. Instructional resource materials will include pacing guidance, scaffolding, and differentiation strategies to help teachers manage the course's scope.
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	Studies, but they have overshot their audience. These are excellent sources and questions for older and more developed students, but not appropriate or attainable for my regular Ed High School students.	
25	This course is failing to teach students about the current government and how it works only focusing on previous government workings and documents. The US government course should teach children how to participate respectfully in civic discourse. This is doing the children a disservice by focusing only on the history of US documents.	The course's foundational content — the Founders' primary sources, the debates of the Constitutional Convention, the Federalist and Anti-Federalist papers, the Lincoln-Douglas debates, the civil rights primary sources — is included because these documents are required by Code 53E-4-205.2 and because constitutional literacy requires engaging with the founding documents directly, not only with contemporary commentary about them. At the same time, the course is specifically designed so that students apply these foundational principles to modern concerns throughout each strand. Strand 4 (previously 5), for example, focuses entirely on applied citizenship in the Utah context. Instructional resource materials will support teachers in connecting historical primary sources to current events throughout the course. This should be an aspect of curriculum teaching these standards. Finally, civic discourse is a civic skill that expresses the civic virtues of civic charity, prudence, moderation, and cooperation. Yes, this course should teach children how to participate respectfully in civic discourse.
26	There are a lot of standards. As a government teacher who teaches in trimesters I am slightly concerned I won't be able to get to all of them. It would be nice to combine or condense some of the standards in each strand into like 5 or 6 essential standards.	The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Even so, we have significantly reduced the quantity, from 47 standards to 31, a reduction by over one-third.

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	Several of the strands have 11-12 standards.	Required primary source readings are intended to be studied as excerpts, not complete texts. Instructional resource materials will include pacing guidance, scaffolding, and differentiation strategies to help teachers manage the course's scope
27	Honestly, strand 1 feels overtly political.	This comment gives us no specifics. Strand 1 should not be considered overtly political. Strand 1 shows students how the principles and virtues found in the Declaration of Independence and the U.S. Constitution are of continuing relevance to the issues we face in the present and appreciate the use of deliberation in fostering these principles and their vital results.
28	I would like to see a section of critical thinking about a constitutional government compared to other governments. This would include current events from around the world. Then placing the event in different forms of government to analyze the pros, cons and benefits for the people.	Through the emphasis on civic skills, the course is designed to develop students' capacity for the civic skills of critical thinking and evidence-based civic argument — not to transmit a single authorized interpretation of constitutional principles. The Anti-Federalist Papers (required throughout Strands 2 and 3), Frederick Douglass's critique of the Constitution (Standard 4.5), and the open-ended guiding questions throughout each strand are all specifically designed to ensure that students encounter competing perspectives and develop their own evidence-based civic views. Instructional resource materials will also support teachers in facilitating genuine inquiry rather than directed conclusions. We agree with the core principle articulated here: civic education is most effective when it develops students' capacity to think critically and independently, not when it transmits a prescribed civic worldview. The writing team will review language throughout the document that may read as prescriptive rather than inquiry-oriented, and will make revisions where appropriate. Additionally, the course is specifically designed so that students apply these foundational principles to modern concerns throughout each strand. Strand 4 (previously 5), for example, focuses entirely on applied citizenship in the Utah context. Instructional resource materials will support teachers in connecting historical primary sources to current events throughout the course. This should be an aspect of curriculum teaching these standards.

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29	In general, a tremendous amount is left open to interpretation in these standards. That can be good, if the goal is Socratic discourse, but the goal seems to be that the teacher will discuss some of these topics from a position of authority. Different classes with different teachers could end up with dramatically polarized, opposing understandings of these topics and underlying civic ethics. The document itself shows its own bias, as egregiously demonstrated by Standard 1.1.	
30	Not sure where, but would be nice to directly discuss money and its involvement in the election process.	Money's involvement in the election process is a significant aspect of modern-day elections. This falls under the purview of Standard 4.4.
31	Overall, the reliance on so many difficult foundational documents can lead to student burnout, disinterest, and make students less interested in our democracy. I do like the fact that the course will be spread over a year and more in depth. I would highly encourage Strand 5 of the current standards to be reinstated!!!	Money's involvement in the election process is a significant aspect of modern-day elections. This falls under the purview of Standard 4.4.
32	I am concerned about the repeated use of the term "common good" or "the	The phrase "common good" is drawn from the classical republican tradition foundational to this course — used by Aristotle, Cicero, and the American Founders themselves. Classical republicanism

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	common good” without clear definition. The concept is inherently subjective and, in a pluralistic society, can be interpreted in conflicting ways. Its use, (particularly in Strand 5, where students are expected to “protect rights and seek the common good”) presents these goals as inherently aligned, without acknowledging the potential tension between majority interests and individual rights. I recommend either clearly defining the term or explicitly requiring students to critically examine its meaning and its relationship to constitutional protections of individual liberty.	guided the Founding Fathers and continues to direct us today. This tradition purports that citizens must prioritize common good over individual needs. The inclusion of the phrase “the common good” in the standards is intentional: the relationship between individual rights and the common good is one of the central tensions the course invites students to examine, not a settled conclusion the course imposes. Rather than resolving this tension for students, the standards treat it as a key topic of civic inquiry. Instructional resource materials will clarify how teachers can facilitate productive inquiry into competing understandings of the common good.
33	My biggest recommendation is to remember that standards should guide curriculum not write it. There are standards that are task driven which fall into the category of writing curriculum. These standards are usually the most challenging for teacher to implement, because they lack flexibility which is needed when trying to meet the needs of students. By removing the specific task and just listing the skill desired in a skill strand, teachers can refer to the required documents and determine the best way to help their students engage with	Yes, we are preparing a guiding document to accompany the standards, in addition to a primary source reader. Your suggestions are useful and the writing team will consider incorporation.

Contact Person and Email: Meghan Everette, meghan.everette@schools.utah.gov

This draft is for consideration during the August 7, 2026 Standards & Assessment Committee Meeting

Date: August 7, 2026



Utah State Board of Education

	those texts and build the identified skills and civic virtues. The specific examples could be shared in a guiding document that accompanies the standards.	
34	Overall, these standards are far too detailed and poorly organized. With all due respect for the effort that has been put in so far, they seem to be written by someone who has not spent much time in a mainstream high school classroom with high school seniors. I am worried student's understanding of the structures, powers and function of government will get lost in historical analysis. Many of the standards action words are "examine" or "analyze." They should also include terms like "describe" and "identify" to create stronger foundation for students vocabulary and basic understandings of the constitution. I'm also concerned that there is no section on political parties, political participation and political analysis.	We are changing many of the verbs, as we agree that "analyze" is not the only important task. Current and previous high school teachers have been involved in this process at every step of the way. The combined social studies teaching experience of these teachers is over 60 years. We have appreciated their input. The writing team has carefully considered concerns about the volume of standards and level of rigor. This course is a full-year replacement for the current one-semester Government course, as mandated by Code 53E-4-205.2. The expanded scope reflects the expanded time. The course is recommended for juniors and seniors approaching voting age, and the depth reflects that expectation. Even so, we have significantly reduced the quantity, from 47 standards to 31, a reduction by over one-third. The organization of the class comes in part from the structure mandated by Code 53E-4-205.2
35	I think it would be beneficial to include standards similar to the 2017 standards that also include economic philosophy, right of property, taxation and	Our choices were directed by what was legislated by required by Code 53E-4-205.2, so the 2017 standards would not quite fit. However, many of the topics you mention are included in the standards.

Contact Person and Email: Meghan Everette, meghan.everette@schools.utah.gov

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	budgeting, as well as a standard dealing with foreign policy and civilian control of the military, checks and balances and US role in the world.	
36	These topics are missing in the new standards: foreign policy, economic systems, cabinets, and party influence in elections / political behavior. In addition, there could be a much more explicit emphasis on inquiry methods, although I do see fundamentals in argument making. What about teaching students to ask questions? I am not sure if I will have the opportunity to add this on the next screen , so I will share it here: I teach a class at West High School called Civics & Communication. It is a civic communication class wherein students complete a Civic Action Project. I would like this course to be added to the list of acceptable courses for LEAs to sub semester 2 of the American Constitutional Government & Citizenship course.	Some of the topics you mention are include in the standards. Additionally Standard 4.7 could be filled by curriculum much like your Civic Action Project by thoughtful teachers. The writing team notes the call for a more explicit emphasis on democratic inquiry, analysis, and critical engagement. The course is designed to develop students' capacity for the civic skills of critical thinking and evidence-based civic argument — not to transmit a single authorized interpretation of constitutional principles. The Anti-Federalist Papers (required throughout Strands 2 and 3), Frederick Douglass's critique of the Constitution (Standard 4.5), and the open-ended guiding questions throughout each strand are all specifically designed to ensure that students encounter competing perspectives and develop their own evidence-based civic views. Instructional resource materials will also support teachers in facilitating genuine inquiry rather than directed conclusions. We agree with the core principle articulated here: civic education is most effective when it develops students' capacity to think critically and independently, not when it transmits a prescribed civic worldview. The writing team will review language throughout the document that may read as prescriptive rather than inquiry-oriented, and will make revisions where appropriate.

Contact Person and Email: Meghan Everette, meghan.everette@schools.utah.gov

This draft is for consideration during the August 7, 2026 Standards & Assessment Committee Meeting

Date: August 7, 2026



SB0268 explicitly adds Section 53E-4-205.2(2)(e) to mandate instruction examining the role of religion in U.S. history and the primacy of religious liberty, which directly aligns with the draft Utah Core State Standards across all four course strands.

Primary Legislative Mandate Alignment

- **Section 53E-4-205.2(2)(e) & Section 53G-10-302(3)(c)(iii):** Mandates the study of "the role of religion in United States history and the primacy of religious liberty to American constitutional government".
 - **Standard 1.3:** Directly fulfills this requirement by having students "analyze how politically relevant principles from diverse colonial religious traditions influenced the American Founding and sparked debates about religious liberty, non-establishment of religion, religious pluralism, and toleration".
 - **Standard 3.3:** Addresses the constitutional application via the "First Amendment's protection of the freedoms of religion, speech, press, assembly, and petition".
 - **Standards 4.5 & 4.7:** Extend this concept to modern citizenship, highlighting the role of "religious and educational organizations" and "faith communities" in civil society.

Section 53E-4-205.3 Optional Topics Cross-Reference

SB0268 Optional Topic (Section 53E-4-205.3)	Corresponding Standards
(a) Foundational Documents & Speeches	Strand 1–4 Required Primary Sources: Mayflower Compact, Declaration of Independence, U.S. Constitution, Washington's Farewell Address, MLK's <i>Letter from Birmingham Jail</i> .
(b) & (c) Colonization & Religious Refugees	Strand 1 Overview & Standard 1.3: Colonial religious traditions, religious pluralism, and toleration.

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This draft is for consideration during the August 7, 2026 Standards and Assessment Committee Meeting



(e) Covenantal Concepts / Mayflower Compact	Strand 1 Guiding Questions & Standard 1.4: Mayflower Compact and social compact traditions.
(f) & (g) Revolution, Natural Rights & Moral Equality	Standard 1.2, Standard 1.4, & Standard 3.5: Natural law, natural rights, and moral equality in founding texts.
(h) First Amendment & Religious Freedoms	Standard 3.3: Text, principles, and interpretation of First Amendment religious protections.
(i), (j), & (n) Abolition, Reform & Civil Rights	Standard 3.5 (Frederick Douglass), Standard 3.6 (Civil Rights Movement), Standard 3.8 (Suffrage), Standard 3.9 (MLK Jr.).
(o) Religious Pluralism in Contemporary America	Standard 1.3 & Standard 4.5: Religious pluralism, toleration, and religious associations in civil society.

Civic Virtues and Primary Source Integration

SB0268 requires prioritizing primary source documents and historical context. The standards document embeds all listed primary sources across its four strands and explicitly includes "faith" as a core civic virtue in **Standard 1.6**, while recognizing "religious associations" as key mechanisms for civic action in **Standard 1.7**.

Contact Person and Email: Meghan Everette, meghan.everette@schools.utah.gov

This draft is for consideration during the August 7, 2026 Standards and Assessment Committee Meeting

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: R277-117, Utah State Board of Education Ethics Amendments (New)

Agenda item type:

Action Item

Recommended Action:

That the Committee approve R277-117, Utah State Board of Education Ethics Amendments, Draft 1, on first reading and forward to the Board for approval on second and final reading.

Purpose of Memo:

Result of legislative action

Background:**Background**

During the 2026 General Session, the Legislature passed H.B. 194 Utah State Board of Education Ethics Amendments, which enacted Title 53E, Chapter 3, Part 13, establishing a comprehensive ethics framework for members of the Utah State Board of Education. The legislation creates an Independent Ethics Commission, establishes a code of official conduct, outlines procedures for ethics complaints and disciplinary actions, and requires annual ethics training and conflict of interest disclosures for Board members.

Summary of the Proposed Rule

R277-117 is proposed to implement the administrative responsibilities assigned to the Utah State Board of Education under Title 53E, Chapter 3, Part 13. The rule establishes procedures for administering the Board's ethics program, including ethics training, conflict of interest disclosure administration, and other Board responsibilities necessary to support implementation of the statutory ethics framework. The rule also provides an overview of the Independent Ethics Commission and its role under state law while deferring substantive complaint and disciplinary procedures to statute.

Staff will present R277-117, Utah State Board of Education Ethics Amendments, Draft 1, for consideration and approval.

Authorizing, and Implemented or Interpreted Law: _____

Contact:

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Title: Policy Advisor
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Attachments:

1. R277-117- Draft 1 - August 2026 Committee
2. R277-117 Reporting Burden and Fiscal Impact Estimate Form

R277. Education, Administration.

R277-117. State Board Member Ethics

R277-117-1. Authority and Purpose.

(1) This rule is authorized by:

(a) Utah Constitution Article X, Section 3, which vests general control and supervision over public education in the Board;

(b) Subsection 53E-3-401(4), which authorizes the Board to make rules to execute the Board's duties and responsibilities under the Utah Constitution and state law;

(c) Section 53E-3-1309, which requires public access to State Board member conflict of interest disclosures; and

(d) Section 53E-3-1315, which requires the Board to develop and maintain an ethics training course for Board members.

(2) The purpose of this rule is to:

(a) establish procedures for implementing Title 53E, Chapter 3, Part 13;

(b) establish requirements for the administration of the Board's ethics training program;

(c) establish procedures for administering conflict of interest disclosures; and

(d) identify the Superintendent's administrative responsibilities under Title 53E, Chapter 3, Part 13.

R277-117-2. Definitions.

(1) "Code of Official Conduct" means the standards of conduct established in 53E-3-1302.

(2) "Conflict of interest disclosure" means the disclosure required under Title 20A, Chapter 11, Part 16.

(3) "Ethics training course" means the course required by Section 53E-3-1315.

R277-117-3 Ethics Training.

(1) The Superintendent shall develop, maintain, and make available the ethics training course required by Section 53E-3-1315.

(2) Each Board member shall complete the ethics training course annually as required by Section 53E-3-1315.

(3) The ethics training course shall include instruction regarding:

(a) the Code of Official Conduct;

(b) conflicts of interest and financial disclosure requirements;

(c) confidentiality requirements;

(d) public meetings requirements;

(e) the appropriate use of Board resources; and

(f) other ethics requirements established in state law, Board rule, or federal law applicable to Board members.

(4) The Superintendent shall:

(a) maintain records and documentation of annual completion; and

(b) notify Board members of annual training requirements.

R277-117-4 Conflict of Interest Disclosures.

(1) The Superintendent shall maintain a publicly accessible link on the Board's website to each Board member's current conflict of interest disclosure.

(2) The Superintendent shall ensure that an oral conflict of interest declaration made by a Board member during a Board meeting is accurately reflected in the meeting minutes.

(3) The Superintendent shall periodically verify that conflict of interest disclosure links remain current and functional.

R277-117-5 Ethics Commission

(1) The Independent Ethics Commission (The Commission) established under Section 53E-3-1303 is responsible for reviewing ethics complaints filed against Board members.

(2) The Commission consists of the following members, who shall be nominated by Board leadership, and appointed by the Board in accordance with Section 53E-3-1303:

(a) two former judges;

(b) two former Board members; and

(c) one former school district superintendent or charter school director.

(3) The Commission shall:

(a) review ethics complaints accepted under Title 53E, Chapter 3, Part 13;

(b) conduct investigations, issue subpoenas, and hold evidentiary hearings in accordance with Sections 53E-3-1310 and 53E-3-1311;

(c) determine, based on a preponderance of the evidence, whether an alleged violation is substantiated;

(d) prepare written findings and recommendations for the Board; and

(e) carry out other duties assigned in Title 53E, Chapter 3, Part 13.

(4) If the Commission determines that an allegation is substantiated, the Commission shall refer its findings and recommendations to the Board to determine appropriate disciplinary action or sanctions.

(5) The Board shall review the Commission's findings of fact and recommendations to make the final determination on whether a violation occurred and what administrative consequences or sanctions, if any, are authorized and warranted in accordance with Section 53E-3-1313, Board Bylaws Article IV, and applicable Board Policy.

(6) Actions taken by the Board under Subsection (5) may include:

(a) issuing a public resolution of censure by majority vote;

(b) restricting committee assignments, agenda placement privileges, or advisory committee participation by a two-thirds vote of the Board in accordance with Board Bylaws; or

(c) taking other administrative or corrective action authorized by law or Board Bylaws.

(7) Nothing in this rule alters the authority or responsibilities of the Commission or the Board established in Title 53E, Chapter 3, Part 13.

R277-117-6 Administrative Responsibilities.

(1) The Superintendent shall:

(a) administer this rule;

(b) maintain records required by this rule;

(c) administer the Board's ethics training program;

(d) maintain conflict of interest disclosure information required by law;

(e) provide administrative support to the Ethics Commission as required by Title 53E, Chapter 3, Part 13; and

(f) provide administrative support necessary for Board review of ethics complaints.

(2) Nothing in this rule alters:

(a) the complaint procedures established in Title 53E, Chapter 3, Part 13;

(b) the authority of the Independent Ethics Commission;

(c) the disciplinary authority of the Board; or

(d) the constitutional authority of the Legislature regarding impeachment.

(3) This rule shall be interpreted consistently with Title 53E, Chapter 3, Part 13.

KEY: State Board of Education, board members, ethics, ethics commission, code of conduct, conflicts of interest, ethics training, financial disclosure

Date of Enactment or Last Substantive Amendment:

Authorizing, and Implemented, or Interpreted Law: Art. X Sec. 3, Utah

Constitution; Sections 53E-3-1309, 53E-3-1315, 53E-3-401.

Utah State Board of Education

Reporting Burden and Fiscal Impact Estimate

R277-117 – State Board Member Ethics (New)

1. Reporting Burden for LEAs

This new rule does not add any reports for LEAs.

2. Estimated Fiscal Impact on USBE

This new rule is not estimated to have measurable fiscal impacts on USBE. The fiscal note for HB194 indicated: *Enactment of this legislation could cost the Utah State Board of Education \$600 ongoing and \$18,000 one-time from the Income Tax Fund beginning in Fiscal Year 2027 to develop the ethics training course, materials, exercises, and cover the per diem rates for the commission members. The Utah State Board of Education reports it can absorb these costs within existing budgets.*

3. Estimated Fiscal Impact on LEAs

This new rule is not estimated to have fiscal impacts on LEAs.

Author: Sam Urie

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: R277-631, Student Toilet Training Requirements (Amendment)

Agenda item type:

Action Item

Recommended Action:

That the Committee approve R277-631, Student Toilet Training Requirements, Draft 1, on first reading and forward to the Board for approval on second and final reading.

Purpose of Memo:

Result of legislative action

Background:**Background**

During the 2026 General Session, the Legislature passed S.B. 58, Public School Attendance Amendments. In addition to making changes related to student attendance, the bill repealed the Board's previous rulemaking authority regarding student toilet training and enacted Section 53G-7-230, requiring the Board to establish rules governing personal care independence requirements for public school enrollment beginning with the 2026-2027 school year.

Summary of Amendments

The amendments make the changes necessary to align Rule R277-631 with S.B. 58. The rule is updated to reflect the Legislature's new personal care independence requirements, revise statutory references, update the implementation date, conform the disability exception to statute, and make technical amendments throughout.

Staff will present R277-631, Student Toilet Training Requirements, Draft 1, for consideration and approval.

Authorizing, and Implemented or Interpreted Law: [Article X, Section 3](#); [53E-3-401](#)(4); [53G-7-203](#)(6)

Contact:

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Attachments:

1. R277-631 - Draft 1 - August 2026 Committee
2. R277-631 Reporting Burden and Fiscal Impact Estimate Form

R277. Education, Administration.

R277-631. Student ~~[Toilet Training]~~ Personal Care Independence Requirements.

R277-631-1. Authority~~[,] and Purpose[, and Oversight Category].~~

(1) This rule is authorized by:

(a) Utah Constitution Article X, Section 3, which vests general control and supervision over public education in the Board;

(b) Subsection 53E-3-401(4), which allows the Board to make rules to execute the Board's duties and responsibilities under the Utah Constitution and state law; and

(c) Subsection ~~[53G-7-203(6)]~~53G-7-230, which requires the Board to make rules ~~[related to student toilet training]~~establishing personal care independence standards for public school enrollment.

(2) The purpose of this rule is to establish ~~[toilet training]~~personal care independence requirements and exceptions for public school enrollment.

~~[(3) This Rule R277-631 is categorized as Category 2 as described in Rule R277-411.]~~

R277-631-2. Definitions.

(1)(a) ~~["Toilet-trained"]~~"Personal Care Independence" means that a student ~~[can]~~is toilet trained, including the ability to:

(i) communicate the need to use the bathroom to an adult;

(ii) sit down on a toilet;

(iii) use the toilet without assistance;

(iv) undress and dress as necessary; and

(v) tend to personal hygienic needs after toileting.

(b) If an accident occurs a ~~["toilet trained" child]~~ student who demonstrates personal care independence can independently tend to hygienic needs and change clothes.

(2) A student ~~[is not "toilet trained"]~~does not meet the personal care independence requirements if the student:

- (a) does not meet the criteria in Subsection (1); or
- (b) has accidents with sufficient frequency to impact the educational experience of the student or the student's peers, as determined by an LEA.

R277-631-3. LEA Requirements.

(1)(a) Beginning in the ~~[2025-2026]~~2026-2027 school year, except as provided in Subsection (b) an LEA may not enroll a student unless the student ~~[is toilet trained]~~meets the personal care independence requirements.

(b) An LEA may enroll a school-aged student who is ~~[not able to be toilet trained]~~unable to meet the personal care independence requirements because of a suspected disability that is subject to federal child find requirements or that is described in an IEP or Section 504 plan.

(2) As part of an LEA's enrollment process, an LEA shall require an assurance from the parent of an incoming student ~~[that the student is toilet trained as required under]~~that the student meets the personal care independence requirements described in Subsection (1)(a).

(3) If an LEA denies enrollment under Subsection (1)(a), the LEA shall provide services consistent with the school's requirements under Subsection 53G-6-302(6) or 53G-6-502(3).

R277-631-4. Background Checks.

(1) An LEA may adopt a policy requiring a background check for a parent's designee entering in public multi-stall restrooms for the purposes of aiding in ~~[toilet training pursuant to Subsection R277-631-3(3)(c) or]~~personal care independence.

(2) An LEA shall ensure that toilet training assistance for a student who is ~~[not toilet trained, as provided under Subsection R277-631-3(3)(c)]~~unable to meet personal care independence requirements occurs in a private or cleared restroom.

KEY: personal care independence, toilet training, kindergarten

59 **Date of Last Change: August 7, 2025**
60 **Authorizing, and Implemented or Interpreted Law: Article X, Section 3; 53E-3-**
61 **401(4); [~~53G-7-203(6)~~]53G-7-230**
62
63

Utah State Board of Education

Reporting Burden and Fiscal Impact Estimate

R277-631 – Student Personal Care Independence Requirements (Amendment)

1. Reporting Burden for LEAs

This rule change does not add any reports for LEAs.

2. Estimated Fiscal Impact on USBE

This rule change is not estimated to have measurable fiscal impacts on USBE.

3. Estimated Fiscal Impact on LEAs

This rule change is not estimated to have fiscal impacts on LEAs.

Author: Sam Urie

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: R277-633, Dyslexia Screener (New)

Agenda item type:

Action Item

Recommended Action:

That the Committee approve R277-633, Dyslexia Screener, Draft 1, on first reading and forward to the Board for approval on second and final reading.

Purpose of Memo:

Result of legislative action

Background:**Background**

During the 2026 General Session, the Legislature passed 2nd Substitute H.B. 393, Early Intervention for Dyslexia Amendments, which created the Dyslexia Screening Pilot Program and directed the Utah State Board of Education to adopt administrative rules necessary to administer the pilot.

Summary of the New Rule

This new rule implements the Dyslexia Screening Pilot Program by establishing application procedures, screening and reporting requirements, criteria for approving dyslexia screeners, and administrative requirements for participating LEAs, as required by Section 53F-5-224.

Staff will present R277-633, Dyslexia Screener, Draft 1, for consideration and approval.

Authorizing, and Implemented or Interpreted Law: [53E-3-401](#); [53F-5-226](#)

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Attachments:

1. R277-633- Draft 1 - August 2026 Committee
2. R277-633 Reporting Burden and Fiscal Impact Estimate Form

R277. Education, Administration.

R277-633. Dyslexia Screening Pilot Program

R277-633-1. Authority and Purpose.

(1) This rule is authorized by:

(a) Utah Constitution Article X, Section 3, which vests general control and supervision over public education in the Board;

(b) Section 53E-3-401, which authorizes the Board to make rules to execute the Board's duties and responsibilities under state law; and

(c) Section 53F-5-226, which requires the Board to administer the Dyslexia Screening Pilot Program and make rules governing the program.

(2) The purpose of this rule is to establish procedures and standards for:

(a) applications to participate in the Dyslexia Screening Pilot Program;

(b) selection of participating district and charter schools;

(c) approval and accessibility of dyslexia screeners;

(d) screening intervals and screening compliance;

(e) intervention delivery and reporting;

(f) data collection and annual reporting; and

(g) program oversight consistent with Section 53F-5-226.

R277-633-2. Definitions.

(1) "Approved screener" means a dyslexia screener that the Board has approved under this rule and placed on the approved list described in Section 53F-5-226.

(2) "Intervention school" means the rural elementary school and urban elementary school selected under Section 53F-5-226 to receive dyslexia intervention.

(3) "Participating school" means a district or charter school selected to participate in the Program.

(4) "Program" means the Dyslexia Screening Pilot Program created in Section 53F-5-226.

_____ (5) "Rural Elementary School" means the same as that term is defined in Section 53F-5-226(1)(c).

_____ (6) "Utah Partner Institutions" means the University of Utah Education Policy Center and the University of Utah College of Education.

_____ (7) "Urban Elementary School" means the same as that term is defined in Section 53F-5-226(1)(e).

R277-633-3 Application Process.

_____ (1) The Superintendent shall publish an application form and application deadline for participation in the Program.

_____ (2) An application shall include:

_____ (a) the school or schools for which participation is requested;

_____ (b) the applicant's proposed implementation plan;

_____ (c) the applicant's data collection and reporting capacity;

_____ (d) the applicant's assurances that it will use only Board-approved screeners for Program purposes;

_____ (e) the applicant's assurances that it will comply with screening, intervention, reporting, and accessibility requirements; and

_____ (f) any other information reasonably necessary for the Board to administer the Program; and

_____ (g) the applicant's assurance that it will allocate local funds as required by Subsection 53F-5-226(4)(c).

_____ (3) As a condition of participation, a participating district or charter school shall comply with:

_____ (a) Section 53F-5-226;

_____ (b) this rule; and

_____ (c) program requirements established by the Superintendent consistent with Section 53F-5-226 and this rule.

_____ (4) The Board may consider, at a minimum, the following in selecting
participating schools:
_____ (a) evidence of need;
_____ (b) readiness to implement the Program;
_____ (c) ability to collect and report required data;
_____ (d) capacity to implement the Program, including administration of the approved
screener, intervention, reporting, and program evaluation; and
_____ (e) any other factor consistent with the purposes of the Program.
_____ (5) The Board may limit the number of participating schools based on available
appropriations and the scope of the pilot.

R277-633-4 Selection of Intervention Schools and Vendor.

_____ (1) From among the participating schools, the Board shall select:
_____ (a) one rural elementary school; and
_____ (b) one urban elementary school
to receive dyslexia intervention under the Program.
_____ (2) The Superintendent shall procure an intervention vendor in accordance with
Title 63G, Chapter 6a, Utah Procurement Code.
_____ (3) The Board may coordinate the intervention procurement and delivery with the
Utah partner institutions.

R277-633-5 Approved Dyslexia Screeners.

_____ (1) The Superintendent shall establish a process including submission
procedures and timelines for reviewing dyslexia screeners submitted for approval under
the Program.
_____ (2) A person requesting approval of a dyslexia screener shall submit the
information required by the Superintendent to demonstrate that the screener satisfies
the requirements of Section 53F-5-226 and this rule.

_____ (3) The Superintendent may request additional documentation necessary to complete the review.

_____ (4) In evaluating a dyslexia screener for approval, the Superintendent shall determine whether the screener:

_____ (a) demonstrates validity and reliability in identifying students who may be at risk for characteristics of dyslexia;

_____ (b) aligns with nationally recognized practices for dyslexia screening;

_____ (c) provides information that may be used to inform instructional decisions, intervention planning, progress monitoring, reporting, or referral for additional evaluation;

_____ (d) is appropriate for use with the grade levels identified in Section 53F-5-226; and

_____ (e) is reasonably available for use by participating district and charter schools.

_____ (5) The Superintendent may consult with literacy specialists, institutions of higher education, or other subject matter experts when reviewing a dyslexia screener.

_____ (6) Upon determining that a dyslexia screener satisfies the requirements of this rule, the Superintendent shall recommend the screener for inclusion on the Board's approved list.

_____ (7) The Board shall maintain and publish on its website the approved list of dyslexia screeners required under Section 53F-5-226.

_____ (8) The Board may remove a dyslexia screener from the approved list if the Board determines that the screener no longer satisfies the approval criteria established in this rule.

_____ (9) Removal does not affect screenings completed before removal.

R277-633-6 Screening Requirements.

_____ (1) A participating district or charter school shall use an approved screener when screening a student for dyslexia under the Program.

_____ (2) Beginning July 1, 2027, a participating district or charter school shall screen

a student who meets the criteria in Section 53F-5-226 using an approved screener.

(3) A participating district or charter school shall administer the dyslexia screener following the benchmark reading assessment administered in accordance with R277-406-4 when a student meets the criteria described in Section 53F-5-226.

(4) In addition to the screening described in Subsection (3), a participating district or charter school shall provide additional screening for a kindergarten or first grade student when teacher observation or parent concern indicates characteristics of dyslexia.

(5) A participating district or charter school shall provide the parent of a participating student with timely information regarding dyslexia screening conducted under the Program, the results of the screening, and available interventions, consistent with Sections 53E-4-307 and 53F-5-226.

(6) A participating district or charter school may use the free screener developed by the Utah partner institutions to satisfy the screening requirements of the Program.

(7) A participating district or charter school shall maintain records sufficient to document compliance with screening requirements.

R277-633-7 Intervention Delivery and Reporting.

(1) A participating district or charter school shall document intervention delivery as required by the Board.

(2) Documentation shall include, at a minimum:

(a) the intervention provided;

(b) the dosage of the intervention;

(c) the duration of the intervention;

(d) the student's response to the intervention; and

(e) any updates to the student's IEP or 504 Accommodation Plan, if applicable.

(3) A participating district or charter school shall submit annual reports to the Board in the form and by the date established by the Board.

(4) The Utah partner institutions shall provide annual reports, in the format prescribed by the Superintendent, to the Board regarding the creation and outcomes of the screener developed under Section 53F-5-226.

R277-633-8 Data, Accessibility, and Privacy.

(1) The Superintendent may establish the data elements required for annual reporting.

(2) A participating district or charter school shall provide the data elements required by the Superintendent in the form and manner established by the Superintendent.

(3) The Superintendent and participating schools shall make reasonable efforts to ensure that Program materials, screener access, and reporting tools are accessible to users with disabilities and compatible with assistive technology, as appropriate.

(4) The Superintendent and participating schools shall handle student data in a manner consistent with applicable privacy and confidentiality requirements.

KEY: dyslexia, screening, pilot programs, literacy

Date of Enactment or Last Substantive Amendment:

Authorizing, and Implemented, or Interpreted Law: 53E-3-401; 53F-5-226

Utah State Board of Education

Reporting Burden and Fiscal Impact Estimate

R277-633 – Dyslexia Screener (New)

1. Reporting Burden for LEAs

This new rule creates reporting requirements consistent with the reporting requirements established by HB393 in the 2026 session.

2. Estimated Fiscal Impact on USBE

This new rule is not estimated to have measurable fiscal impacts on USBE.

3. Estimated Fiscal Impact on LEAs

This new rule is not estimated to have fiscal impacts on LEAs.

Author: Sam Urie

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: R277-914, Career and Technical Student Organizations (Amendment & Continuation)

Agenda item type:

Action Item

Recommended Action:

That the Committee continue and approve R277-914, Career and Technical Student Organizations, Draft 1, on first reading and forward to the Board for continuation and approval on second and final reading.

Purpose of Memo:

5-year review

Background:**Background**

Rule R277-914 establishes requirements for the oversight and fiscal accountability of Career and Technical Student Organizations (CTSOs) recognized by the Utah State Board of Education. As part of the Board's required five-year review of administrative rules, the rule was reviewed to ensure it remains consistent with current statute, Board authority, and agency practice. The review determined that the rule continues to provide appropriate governance for CTSOs while supporting the Board's administration of career and technical education programs under Section 53E-3-507.

Summary of Proposed Amendments

The proposed amendments update Rule R277-914 as part of the required five-year review. The amendments revise and clarify definitions, improve organization and readability, update cross-references, and make technical and conforming changes throughout the rule. The amendments do not make substantive changes to the oversight, governance, or fiscal accountability requirements for Career and Technical Student Organizations.

Staff will present R277-914, Career and Technical Student Organizations, Draft 1, for consideration and approval.

Authorizing, and Implemented or Interpreted Law: [53E-3-507](#)(1); [53E-3-507](#)(3); [53E-3-401](#)(4)

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Attachments:

1. R277-914 - Draft 1 - August 2026 Committee
2. R277-914 Reporting Burden and Fiscal Impact Estimate Form

R277. Education, Administration.

R277-914. Career and Technical Student Organizations.

R277-914-1. Authority and Purpose.

(1) This rule is authorized by:

(a) Utah Constitution Article X, Section 3, which vests general control and supervision over public education in the Board;

(b) Subsection 53E-3-507(1), which directs the Board to establish minimum standards for career and technical programs in the public education system;

(c) Subsection 53E-3-507(3), which directs the Board to cooperate with federal and state governments to administer programs which promote and maintain career and technical education; and

(d) Subsection 53E-3-401(4), which allows the Board to make rules to execute the Board's duties and responsibilities under the Utah Constitution and state law.

(2) The purpose of this rule is to:

(a) make Career and technical student organizations programmatically and fiscally accountable to the Board; and

(b) provide procedures and supervision toward that end.

R277-914-2. Definitions.

(1) "Career and technical education" or "CTE" means organized educational programs ~~[or courses in a secondary school that:~~

~~—— (a) teach current industry specific skills and knowledge;~~

~~—— (b) prepare a student for employment; and~~

~~—— (c) can prepare a student for postsecondary employment where entry requirements do not require a baccalaureate or advanced degree.] that:~~

(a) prepare students for a wide range of high-skill, high-demand or emerging careers;

(b) provide all students with a seamless education system from public education to postsecondary education, driven by a Plan for College and Career Readiness as

defined in Rule R277-462; and

(c) provide students competency-based instruction, hands-on experiences, and certified occupational skills, culminating in meaningful employment.

~~[(2) "CTE programs of study" means programs organized into clusters that include:~~

~~—— (a) agriculture, food, and natural resources;~~

~~—— (b) architecture and construction;~~

~~—— (c) arts, audio or vision technology, and communications;~~

~~—— (d) business, finance, and marketing;~~

~~—— (e) computer science and information technology;~~

~~—— (f) education and training;~~

~~—— (g) engineering and technology;~~

~~—— (h) health science;~~

~~—— (i) hospitality and tourism;~~

~~—— (j) human services;~~

~~—— (k) law, public safety, corrections, and security;~~

~~—— (l) manufacturing; and~~

~~—— (m) transportation, distribution, and logistics.]~~

~~[(3)]~~(2) "Career and technical student organization" or "CTSO" means a designated student leadership organization that:

(a) provides opportunities for students to learn and practice:

(i) leadership development;

(ii) academic and technical skills; and

(iii) community involvement; and

(b) are intra-curricular organizations which are integral to the career and technical programs at the secondary and postsecondary levels of instruction; and

(c) have local, state and national affiliation.

~~[(4)]~~(3) "CTSO state advisor" means a professional in identified program areas designated by the Superintendent to direct a career and technical student leadership organization statewide.

(4) “Program” means a combination of CTE courses within a pathway and cluster that provides the competencies needed for specific certifications, job placement, or continued postsecondary training.

R277-914-3. Student Organization Advisory Boards.

(1) Each student organization designated by the Superintendent shall establish a statewide organization advisory board of not less than five members, one of which must be the Superintendent or designee.

(2) Each CTSO shall develop and follow organization by-laws, which shall be available on the CTSO's website.

(3) Each CTSO advisory board shall have advisory fiscal oversight for the organization.

(4) Each CTSO advisory board shall conduct an annual performance evaluation of the work performed by the respective CTSO advisor.

(5) Each CTSO shall comply with the policies and procedures established by the Superintendent.

R277-914-4. Fiscal Oversight of Student Organizations.

(1) A CTSO advisory board shall act consistent with fiscal procedures provided by the Superintendent.

(2) A CTSO advisory board shall submit the required financial records and reports for monitoring on a schedule established by the Superintendent.

(3) A CTSO's financial records shall be submitted for review whenever there is a change in the CTSO state advisor.

(4) The funds designated for management of student organizations at the state level shall be dispersed by the Superintendent for CTSOs through the grants management system.

(5) Additional funds allocated by the legislature as CTE student organization funds shall be used for:

(a) oversight and management of state CTSO programs, including:

(i) national conference travel;

(ii) salaries; and

(iii) state level advisors, operations, and management; and

(b) if funds are available, CTSO grants to an LEA.

KEY: secondary education, career and technical education

Date of Last Change: November 8, 2021

Notice of Continuation: September 9, 2021

Authorizing, and Implemented or Interpreted Law: 53E-3-507(1); 53E-3-507(3); 53E-3-401(4)

Utah State Board of Education

Reporting Burden and Fiscal Impact Estimate

R277-914 – Career and Technical Student Organizations (Amendment)

1. Reporting Burden for LEAs

This rule change does not create new reports for LEAs.

2. Estimated Fiscal Impact on USBE

This rule change is not estimated to have measurable fiscal impacts on USBE.

3. Estimated Fiscal Impact on LEAs

This rule change is not estimated to have fiscal impacts on LEAs.

Author: Sam Urie

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: R277-727, School Meal Programs (Amendment)

Agenda item type:

Action Item

Recommended Action:

That the Committee approve R277-727, School Meal Programs, Draft 1, on first reading and forward to the Board for approval on second and final reading.

Purpose of Memo:

Result of legislative action

Background:**Background**

HB 100 (2025 General Session) established new requirements related to reduced-price lunches and state reimbursement. As LEAs began implementing the legislation, USBE received questions regarding reimbursement procedures, meal debt communications, and implementation responsibilities. These amendments update Rule R277-727 to provide additional clarity and align the rule with current statutory requirements.

Summary

The proposed amendments reorganize Rule R277-727 to improve clarity for LEAs by separating Superintendent administrative responsibilities from LEA implementation requirements. The amendments also align the rule with Section 53F-2-422, enacted by HB 100 (2025 General Session), by clarifying reduced-price lunch reimbursement procedures, meal debt communications, and LEA responsibilities while preserving existing administration of school meals program revenues under Section 53E-3-510.

Staff will present R277-727, School Meal Programs, Draft 1, for consideration and approval.

Authorizing, and Implemented or Interpreted Law: [Art X Sec 3](#); [53E-3-401](#)(4); [53E-3-510](#)

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Attachments:

1. R277-727 - Draft 1 - August 2026 Committee
2. R277-727 Reporting Burden and Fiscal Impact Estimate Form

R277. Education, Administration.

R277-727. School Meals Program.

R277-727-1. Authority and Purpose.

(1) This rule is authorized by:

(a) Utah Constitution Article X, Section 3, which vests general control and supervision over public education in the Board;

(b) Section 53E-3-401(4), which allows the Board to make rules to execute the Board's duties and responsibilities under the Utah Constitution and state law; and

(c) Section 53E-3-510, ~~[which allows the Board to control how meals program revenue may be disbursed, transferred, or drawn upon.]~~which authorizes the Board to administer the school meals program and apportion school meals program revenues;
and

(d) Section 53F-2-423, which requires the Board to reimburse LEAs for eligible reduced-price lunches and administer the state reduced-price lunch reimbursement program.

(2) The purpose of this rule is to:

(a) ~~[define school meals programs]~~establish procedures for administering and apportioning school meals program revenues under Section 53E-3-510; and

(b) ~~[outline how the school meals program revenue may be distributed.]~~establish procedures for administering the state reduced-price lunch reimbursement program under Section 53F-2-423

(c) clarify LEA responsibilities related to implementation of school meals requirements; and

(d) establish monitoring and reporting requirements necessary to administer the program.

R277-727-2. Definitions.

(1) "Eligible LEA" means a school district or charter school participating in the National School Lunch Program that is eligible to receive reimbursement under Section 53F-2-423.

(2) "Eligible student" means a student enrolled in kindergarten through grade 12 who qualifies for reduced-price meals under the National School Lunch Program.

~~[(4)]~~(3) "Federal child nutrition laws" means the Richard B. Russell National School Lunch Act, 79 P.L. 396, 60 Stat. 230, and the Child Nutrition Act of 1966, 89 P.L. 642, 80 Stat. 885.

(4) "Meal debt" means unpaid charges owed to an LEA for school meals. Meal debt includes delinquent debt while collection efforts are ongoing and may become bad debt if determined to be uncollectable in accordance with applicable federal requirements.

(5) "National School Lunch Program" means the same as defined in 7 C.F.R. 210.2.

(6) "Reimbursable lunch" means a lunch that meets USDA reimbursement requirements under the National School Lunch Program.

~~[(2)]~~(7) "School meals program" means~~[a program that meets the requirements in 7 CFR 210, 220, or 225.]~~a program that operates in accordance with the requirements of 7 C.F.R. Parts 210, 220, or 225.

R277-727-3. School Meals Program Reimbursement.

(1) The Superintendent shall administer school meals program revenues in accordance with Section 53E-3-510.

(2) The Superintendent shall establish procedures for apportioning and distributing school meals program revenues to LEAs in accordance with Section 53E-3-510.

(3) The Superintendent may establish reporting, documentation, and verification procedures necessary to administer the school meals program and comply with applicable state and federal requirements.

57 (4) The Superintendent may monitor LEA participation and reimbursement
58 requests to ensure compliance with applicable law.

59 ~~[(1)]~~(5) An LEA shall receive a state reimbursement for each meal served
60 pursuant to a school meals program through a state reimbursement rate established by
61 the Superintendent.

62 ~~[(2)]~~(6) The Superintendent shall determine the state reimbursement rate by
63 considering:

- 64 (a) the previous year's state reimbursement rate;
65 (b) statewide participation rates in school meals programs;
66 (c) the amount of state liquor tax revenues collected pursuant to Subsection
67 32B-2-304(4); and
68 (d) additional considerations established by the Board.

69 ~~[(3)]~~(7) The Superintendent shall establish at least twice a year a flat rate per
70 reimbursable meal served pursuant to a school meals program.

71 ~~[(4)]~~(8) The Superintendent may establish an additional reimbursement rate if
72 there is incremental state liquor tax revenue collected compared to the total collected
73 amount in fiscal year 2021.

74 ~~[(5)]~~(9) An LEA may receive an additional state reimbursement amount per
75 reimbursable meal served if the LEA has established school meals programs
76 enhancements including:

- 77 (a) increased meal quality;
78 (b) innovative meal access;
79 (c) locally purchased products; or
80 (d) improved meal presentation.

81 ~~[(6)]~~(10) The Superintendent shall establish:

- 82 (a) the qualifying criteria for an additional state reimbursement described in
83 Subsection ~~[(4)]~~(8); and
84 (b) appropriate monitoring procedures in accordance with Federal child nutrition
85 laws.

86 ~~[(7)]~~(11) The Superintendent shall establish the additional state reimbursement
87 rate by considering:

- 88 (a) the previous year's additional state reimbursement rate;
- 89 (b) participation rates of school meals programs for LEAs with school meals
90 programs enhancements;
- 91 (c) the amount of incremental state liquor tax revenues collected to be set aside;
92 and
- 93 (d) additional considerations established by the Board.

94
95 **R277-727-4. LEA Responsibilities.**

96 (1) An eligible LEA shall provide a reimbursable lunch at no charge to an eligible
97 student as required by Section 53F-2-423.

98 (2) An eligible LEA seeking reimbursement shall submit information and
99 supporting documentation in the form and manner established by the Superintendent.

100 (3) An eligible LEA shall maintain records sufficient to support reimbursement
101 requests and demonstrate compliance with applicable state and federal requirements.

102 (4) An eligible LEA shall direct communications regarding a student's meal debt
103 only to the student's parent or guardian, consistent with Section 53F-2-423.

104 (5) An LEA shall ensure that meal service practices do not publicly identify,
105 stigmatize, or place responsibility on a student for resolving meal debt.

106 (6) Nothing in this rule prohibits school personnel from responding to a student's
107 request for information regarding the student's own meal account, provided the
108 communication:

- 109 (a) is initiated by the student;
- 110 (b) is conducted privately and respectfully; and
- 111 (c) is not used to collect meal debt from the student.

112 (7) An eligible LEA shall maintain a written meal charge policy consistent with
113 applicable
114 federal requirements.

(8) An LEA shall consider appropriate food waste reduction measures, consistent with Subsection 53F-2-423(6).

R277-727-5. Reduced-Price Lunch Reimbursement.

(1) Subject to legislative appropriations, the Superintendent shall provide reimbursement to eligible LEAs in accordance with Section 53F-2-423.

(2) The Superintendent shall establish reimbursement procedures consistent with state law.

(3) If appropriated funds are insufficient to fully reimburse participating LEAs, reimbursements shall be distributed in accordance with Section 53F-2-423.

R277-727-6. Monitoring.

(1) The Superintendent may review reimbursement documentation submitted by an LEA.

(2) An LEA shall provide documentation requested by the Superintendent to verify reimbursement claims.

(3) If reimbursement funds are distributed in error, the Superintendent may recover those funds in accordance with applicable state and federal law.

KEY: school meals, child nutrition, reimbursement

Date of Last Change: June 24, 2021

Notice of Continuation: May 13, 2026

Authorizing, and Implemented or Interpreted Law: Art X Sec 3; 53E-3-401(4); 53E-3-510, 53F-2-423

Utah State Board of Education

Reporting Burden and Fiscal Impact Estimate

R277-727 – School Meal Programs (Amendment)

1. Reporting Burden for LEAs

This rule change does not create new reports for LEAs.

2. Estimated Fiscal Impact on USBE

This rule change is not estimated to have measurable fiscal impacts on USBE.

3. Estimated Fiscal Impact on LEAs

This rule change is not estimated to have fiscal impacts on LEAs. Changes to 53F-2-423 were due to HB100 from the 2025 session.

Author: Sam Urie

UTAH STATE BOARD OF EDUCATION

Subject:

Time Certain 11:00 - INFORMATION: Independent Review of Mathematics Standards Presentation

Agenda item type:

Information Item

Recommended Action:

Information item

Purpose of Memo:

Other

Background:

The Utah State Board of Education approved an independent review of the Draft Utah Mathematics Standards. The independent reviewers are presenting an overview of the results of that independent review.

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Attachments:

1. 1. Gap Analysis
2. 1a. MA Benchmark Crosswalk
3. 1b. MN Benchmark Crosswalk
4. 1c. Singapore Benchmark Crosswalk
5. 2. Benchmarking Standards Review
6. 2a. CSM Review Sheet
7. 2b. Appendix A Criteria Rubrics
8. 3. Full and Final Report
9. Draft AGA Secondary Mathematics Standards, Step 11 Revision (2) 1 (2)
10. Draft P-12 Utah Core Mathematics Standards, Step 11 Revisions (2) 1

Review of the Utah Core Standards for Mathematics (UCS-M)

Preliminary Gap Analysis Findings – Comparisons with Benchmarks

Memo

Revised July 27, 2026

In May 2026, WestEd contracted with the Utah State Board of Education (USBE) to conduct an independent, third-party review of the proposed draft of the Utah Core Standards for Mathematics (UCS-M). The overall project is intended to provide a thorough review of the UCS-M for its rigor, clarity, measurability, instructional focus, developmental appropriateness, and the integration of mathematical practices, along with a Benchmark comparison of the UCS-M with high-performing national and international frameworks and standards. This memo describes the methodology used and high-level results from the Benchmark comparisons and Gap analyses completed during the first phase of this project. The next memo will summarize results from the detailed standards-level analyses of the UCS-M. A final report will integrate all findings across the entire review along with recommendations and summary of the strengths and weaknesses of the draft UCS-M.



Purpose

The purpose of this memo is to summarize initial findings from comparisons to benchmarks and the gap analyses conducted as part of the broader review of the Utah Core Standards for Mathematics (UCS-M). The memo highlights areas where the Utah standards appear broadly comparable to benchmark systems as well as areas where content may receive greater or lesser emphasis relative to those benchmarks. These findings are intended to support discussion and feedback with USBE and inform the final report at the end of the review process.

Scope of Work

This memo summarizes findings from the preliminary gap analyses comparing UCS-M with three national and international benchmark systems: the Massachusetts Mathematics Curriculum Framework, the Minnesota Academic Standards in Mathematics, and the Singapore Mathematics Syllabus.

The analyses completed during this phase focused on standards-level crosswalks and high-level comparisons of content coverage. Specifically, reviewers examined the degree of alignment (grade-level match) between Utah standards and corresponding benchmark standards and identified areas of relative over-representation, under-representation, or comparable emphasis across major mathematics domains and grade levels. The analyses considered both the presence of content and the placement of concepts within the overall K–12 progression.

This memo is intended to provide an initial picture of how the Utah standards compare to selected benchmark systems. Detailed analyses of the UCS-M for its rigor, clarity, measurability, instructional focus, developmental appropriateness, and integration of mathematical practices will be conducted in the next phase of this study. As a result, findings presented here should not be interpreted as recommendations regarding standards revision.

The Utah Core Standards for Mathematics (UCS-M)

The draft UCS-M present a PK–12 progression designed to develop conceptual understanding, procedural fluency, and mathematical reasoning. The standards are organized around major mathematical domains, explicitly integrate eight Utah Mathematical Practices throughout the standards, and identify Essential Competencies at each grade level to highlight foundational learning priorities. Distinguishing features of the standards include a strong emphasis on data science, mathematical modeling, and an effort to explicitly integrate mathematical practices into every content standard.



Benchmark Selection Rationale

The benchmark standards included in this study were selected in collaboration with USBE to provide multiple perspectives on high-quality mathematics standards. Together, the selected benchmarks represent nationally recognized expectations, high-performing state systems, and internationally respected mathematics frameworks. The combination of benchmarks allows for a balanced evaluation of the Utah standards while minimizing reliance on any single reference point.

- **Massachusetts** was selected due to its longstanding reputation for rigorous, coherent expectations and strong emphasis on foundational skills and fluency. Massachusetts is frequently used as a reference point in external reviews and cross-state comparisons, making its standards a credible high bar for evaluating depth, grade-to-grade progression, and readiness for advanced coursework.
- **Minnesota** was selected because their mathematics standards are widely viewed as clear, coherent, and practical for instruction, with a strong focus on grade-by-grade progression and readiness for algebra. The state's recent revisions also highlight reasoning, problem solving, and equitable access. Minnesota standards provide a strong comparison point for usability and coherence alongside rigor.
- **Singapore** was selected as an international benchmark because of its sustained record of high performance on international mathematics assessments (such as the TIMSS and PISA) over multiple cycles and its internationally recognized coherent and well-documented system. Its curriculum is focused and logically sequenced, supported by clear instructional frameworks (e.g., CPA and problem solving) and strong alignment across standards, materials, and assessments.

As a whole, these benchmark systems provide a robust set of comparison points against which to evaluate the Utah standards. They represent a range of approaches to mathematics standards design while sharing a commitment to rigorous content, coherent progressions, and preparation for future learning.

Review Process

Reviewers first conducted standards-level crosswalks comparing the UCS-M to corresponding standards in each benchmark system, including Massachusetts, Minnesota, and Singapore. For each Utah standard, reviewers identified the benchmark standard or standards that most closely aligned with the intended mathematical content and learning expectations. These crosswalks were used to evaluate the degree of grade-level match between Utah and each benchmark system and to identify content that appeared uniquely emphasized, omitted, or placed at different points (or grade-levels) within the K–12 progression. Because the Singapore mathematics systems organize and sequence secondary mathematics content differently compared to Utah (and most US systems), middle and high school standards were compared at the grade-band level with Singapore rather than through direct grade-to-grade or course-to-



course comparisons.

The results from the crosswalks were then summarized as a domain-by-domain coverage analysis comparing the Utah standards to the benchmark systems to identify areas of comparable emphasis, greater emphasis, or lesser emphasis across major mathematics domains and grade bands.

Finally, reviewers compared the Utah Mathematical Practices (MPs) to the Standards for Mathematical Practices (SMPs), which are commonly used across several states including Massachusetts and Minnesota. This analysis examined the extent to which Utah's Mathematical Practices reflected similar expectations for mathematical reasoning, problem solving, communication, modeling, and strategic use of tools.

Together, the coverage analysis and standards-level crosswalks provide a descriptive comparison of the Utah standards relative to the selected benchmark systems. A detailed analysis of the Utah mathematics standards for its rigor, clarity, measurability, instructional focus, developmental appropriateness, and integration of mathematical practices is also currently underway, and findings from those analyses will be summarized in a subsequent memo.

Summary of Findings

The findings presented in this memo summarize the results of the benchmarking analyses conducted to compare the Utah Core Mathematics Standards (UCS-M) with selected national and international benchmark systems. These analyses focused on comparisons of content coverage across major mathematics domains, and standards-level crosswalks designed to identify areas of alignment and divergence between Utah and each benchmark system. The purpose of these analyses was to provide an understanding of how the Utah standards compare to recognized benchmark frameworks and to identify notable patterns in content emphasis and standards alignment in appropriate grade levels.

The sections that follow summarize key observations from the domain-level coverage analyses, standards-level crosswalks, and the mathematical practices comparison. Detailed supporting evidence, including completed crosswalks in comparison with each Benchmark, are provided in companion appendices in the form of excel workbooks.

Content Standards – Crosswalk Against Benchmarks

To provide a detailed comparison of the UCS-M and standards from across the benchmark systems, reviewers conducted standards-level crosswalk analyses comparing individual Utah standards to corresponding standards in Massachusetts, Minnesota, and Singapore. The purpose of these crosswalks was to identify the degree of alignment (specifically, grade-level match) between Utah and each benchmark system.

Because the organization of mathematics content differs across grade levels and among the



benchmark systems, findings from the standards-level crosswalks were synthesized into a common set of reporting domains to facilitate meaningful comparisons. Individual Utah strands and benchmark standards were grouped into broader domains for K–8 (and separately for high school). For the **K–8 standards**, the following reporting **domains** were used: **Number and Operations** [which includes the following Utah strands: Counting and Cardinality (CC), Number and Operations in Base Ten (NBT), Number and Operations—Fractions (NF), and Number Systems (NS)]; **Ratios and Proportional Reasoning** [which includes the RP Utah strand]; **Algebraic Thinking** [which includes the following Utah strands: Operations and Algebraic Thinking (OA), Algebra (A)]; **Functions** [which includes the Functions (F) Utah strand]; **Geometry and Measurement** [which includes the Measurement & Geometry (MG) and Geometry (G) Utah strands]; and **Statistics and Data Science** [which includes the D Utah strand]. For the **high school standards**¹, the following reporting **domains** were used: **Algebra** [which includes the A Utah strand], **Functions** [which includes the F Utah strand], **Number Systems** [which includes the NS Utah strand], **Geometry** [which includes the G Utah strand], **Data Science** [which includes the D Utah strand], and **Matrices/Vectors** [which include the M and V Utah strands]. These reporting domains provide a consistent framework for summarizing patterns across the standards while preserving the underlying content relationships represented in each benchmark system.

Findings are presented below separately for K–8 and for high school. The findings presented below summarize major patterns that emerged from the standards-level crosswalk analyses and highlight areas where the UCS-M demonstrate comparable, greater, or lesser emphasis relative to the benchmark systems, as well as notable differences in grade-level placement where applicable. Domain-level and grade-level summary tables (see Tables 3 through 10) are presented in this memo; detailed standard-by-standard crosswalks are provided in the accompanying appendices.

To summarize the crosswalk results at the reporting-domain level, Utah standards within each domain were classified according to their degree of grade-level match with benchmark standards. The number of standards demonstrating strong or partial grade-level match was considered alongside the number of Utah-only and benchmark-only standards within the domain. Domains in which 90 percent or more of Utah standards demonstrated a strong or partial grade-level match to benchmark standards were classified as having **comparable coverage**. Domains containing a notably larger number of Utah-specific standards were classified as reflecting **greater emphasis** in the UCS-M, while domains containing benchmark-specific standards not covered in the UCS-M were classified as reflecting **lesser emphasis**. When comparable content was present in both systems but appeared at different points in the progression, the domain was classified as reflecting a **difference in placement**.

¹ **Please note:** To simplify reporting, high school findings are summarized according to the Secondary I, Secondary II, and Secondary III course sequence. The Algebra I–Geometry–Algebra II (AGA) pathways contain substantially similar content organized through a different course structure and therefore were not analyzed separately. The inclusion of separate AGA analyses would not be expected to materially alter the overall findings presented here; however, a more detailed pathway-specific analysis may be conducted and included in the final report if requested by the client.



Table 1. Domain Coverage Summary Across Grades K–8 in Comparison to Benchmarks

Reporting Domain	MA	MN	Singapore
Number & Operations	Comparable	Different emphasis	Different placement
Ratios & Proportional Reasoning	Comparable	Comparable	Comparable
Algebraic Thinking	Comparable	Slightly different emphasis	Different placement
Functions	Comparable	Comparable	Different placement
Geometry & Measurement	Slightly less emphasis	Different placement and emphasis	Different placement and emphasis
Statistics & Data Science	Utah - greater emphasis	Utah - greater emphasis	Utah - greater emphasis

Grade K–8: Table 1 summarizes domain-level content coverage across grades K–8 relative to the benchmark systems. Overall, the UCS-M are largely comparable to the Massachusetts benchmarks across most content domains in K–8; the analysis indicated strong or partial grade-level match for 90% or more of the UCS-M standards and the corresponding benchmark standards (see Tables 3 through 6; and Tables 7 through 10). A comparison to the Minnesota standards revealed largely similar content, with some notable differences in emphasis and placement across domains. Finally, although the comparison to the Singapore Mathematics Syllabus in grades K–8 revealed overlap in overall content coverage, there were notable differences in the timing and sequencing of concepts.

Moreover, across all benchmark comparisons, one significant difference for the UCS-M is the greater emphasis placed on Statistics and Data Science in the Utah standards. Although some Utah Data Science standards demonstrated partial or weak grade-level match to individual benchmark standards, the overall analysis suggests that Utah places greater emphasis on Data Science throughout the K–8 progression than is reflected in the benchmark systems. In contrast, other Benchmarks (especially Minnesota) generally embeds data-related expectations within a more traditional statistics framework and includes fewer standards dedicated to the complete data-investigation cycle. The analysis also identified a limited number of Minnesota-only standards across several domains (see Tables 5 and 9), suggesting that while the systems are broadly comparable, each places somewhat greater emphasis on particular topics and skills.

The analysis also identified instances where the benchmark systems place somewhat greater emphasis on particular content areas despite overall comparability. For example, while more than 96 percent of Utah's K–8 Geometry and Measurement standards demonstrated strong or partial grade-level match to the Massachusetts standards, these Benchmarks also included



several Geometry and Measurement standards that were not represented within the Utah K–8 standards (see Tables 3 through 6). These findings suggest that the UCS-M are broadly comparable to the other US states included as benchmarks, however, the analysis highlighted specific areas where Utah and the benchmark systems may slightly differ in their relative emphasis and content coverage.

The comparison between the grade K–8 UCS-M and the Singapore Mathematics Syllabus revealed a substantially different pattern than the comparisons with Massachusetts and Minnesota. While many mathematical concepts are addressed in both systems, the analysis suggests that differences are often driven by the timing and sequencing of content rather than the presence or absence of content. Singapore generally introduces a number of mathematical topics earlier than Utah, particularly in the elementary grades. For example, multiplication and division concepts, fractions, measurement topics, geometry concepts, unit conversions, and percentage are frequently introduced one or more years earlier in Singapore than in Utah. As a result, many standards that appeared as Singapore-only within a particular grade band were found to have corresponding content in Utah at a later grade level. In addition, while the other benchmark standards and Utah often integrate mathematical practices or habits of mind either explicitly or implicitly, Singapore standards focus more consistently on general topic areas without necessarily specifying explicit performance expectations. In addition, Singapore standards sometimes tend to be broader and more general in nature, leading to partial or weak alignment.

High School: Table 2 summarizes domain-level content coverage across the high school courses relative to the benchmark systems. Overall, the UCS-M are largely comparable to the Massachusetts standards across all content domains in high school; the analysis indicated strong or partial grade/course-level match for 90% or more of the UCS-M standards with the corresponding Massachusetts standards. Similar to K–8, the analysis also identified domains where the benchmark systems place somewhat greater emphasis on particular content areas despite overall comparability. For example, while 100% of Algebra, Geometry, and Number Systems UCS-M standards for high school demonstrated strong or partial grade-level match to the Massachusetts standards, these benchmark standards also included additional standards that were not represented within the Utah standards for these domains (see Table 3).

The comparisons with the Minnesota high school standards revealed more variations in emphasis, though these standards were also largely aligned. Several domains demonstrated lower levels of direct alignment for the Minnesota standards and UCS-M, reflecting differences in how concepts are organized, sequenced, and articulated within the two systems. Moreover, Utah's treatment of complex numbers, matrices, vectors, and certain modeling-oriented standards produced several Utah-only standards, which were absent in the Minnesota standards.



Table 2. Domain Coverage Summary Across High School in Comparison to Benchmarks

Reporting Domain	MA	MN	Singapore
Algebra	Comparable	Slightly different emphasis	Slightly different emphasis
Functions	Comparable	Slightly different emphasis	Different placement and emphasis
Number Systems	Comparable	Slightly different emphasis	Different emphasis
Geometry	Comparable	Slightly different emphasis	Different placement and emphasis
Data Science	Comparable	Comparable	Utah - greater emphasis
Matrices & Vectors	Comparable	Utah - greater emphasis	Utah - greater emphasis

The high school comparison between the UCS-M and the Singapore Mathematics Syllabus revealed greater differences than were observed in the comparisons with Massachusetts and Minnesota. While a number of advanced mathematical concepts are addressed in both systems, the overall organization, sequencing, and placement of content differ considerably. In many cases, standards that appear unique to one system are addressed in the other system at a different point in the progression, making direct course-by-course comparisons challenging. As a result, many of the differences identified in the crosswalks reflect structural differences in how the two systems organize secondary and pre-university mathematics rather than simple differences in content coverage.

Despite these structural differences, several areas of alignment were also identified between the UCS-M and the Singapore standards. These similarities were particularly noted in advanced algebra, functions, probability, and statistics. Strong matches were observed in topics such as logarithmic and exponential relationships, arithmetic and geometric sequences, complex numbers, function transformations, and statistical inference. However, substantial differences in placement and emphasis remain. Utah places greater emphasis on data-science processes, including study design, sampling, bias, confounding variables, ethics, reproducibility, and the interpretation of evidence, while Singapore places greater emphasis on calculus and other advanced pre-university mathematics topics that are not included within Utah Secondary III. The analysis also suggests that several topics identified as unique to one system are often addressed elsewhere within the other system's progression. Consequently, the high school comparison is best characterized as one of differing organizational structures and instructional pathways rather than a direct measure of equivalence in content comparisons.





Table 4. Domain-level Alignment Summary Compared to the Massachusetts Mathematics Curriculum Framework

	Utah standards						Massachusetts standards	
Reporting Domain	Number of Utah Standards	Strong Grade-level Match	Partial Grade-level Match	Weak Grade-level Match	Different MA Grade Level	Utah only	Different Utah Grade Level	MA only
Grades K–8 Domains								
Number & Operations	76	67	5	-	-	4	-	-
Ratios & Proportional Reasoning	12	11	1	-	-	-	-	-
Algebraic Thinking	51	46	4	-	-	1	-	1
Functions	5	5	-	-	-	-	-	-
Geometry & Measurement	55	50	3	-	1	1	-	5
Statistics & Data Science	43	18	13	6	-	6	-	2
High School Domains								
Algebra	17	17	-	-	-	-	-	-
Functions	27	24	3	-	-	-	-	-
Number Systems	7	6	1	-	-	-	-	-
Geometry	24	24	-	-	-	-	-	1
Data Science	18	16	2	-	-	-	-	-
Matrices & Vectors	13	13	-	-	-	-	-	-



Table 5. Domain-level Alignment Summary Compared to the Minnesota Academic Standards in Mathematics

	Utah standards						Minnesota standards	
Reporting Domain	Number of Utah Standards	Strong Grade-level Match	Partial Grade-level Match	Weak Grade-level Match	Different MN Grade Level	Utah only	Different Utah Grade Level	MN only
Grades K–8 Domains								
Number & Operations	76	38	24	7	-	7	3	10
Ratios & Proportional Reasoning	12	7	5	-	-	-	-	1
Algebraic Thinking	51	27	16	4	1	3	-	6
Functions	5	3	2	-	-	-	1	3
Geometry & Measurement	55	26	12	2	4	11	4	4
Statistics & Data Science	43	22	19	-	-	2	4	6
High School Domains								
Algebra	17	4	9	1	2	1	-	-
Functions	25	11	5	4	3	2	-	-
Number Systems	7	2	2	-	2	1	-	-
Geometry	24	12	5	-	4	3	-	-
Data Science	18	11	7	-	-	-	-	-
Matrices & Vectors	13	2	-	-	3	8	-	-



Table 6. Domain-level Alignment Summary Compared to the Singapore Mathematics Syllabus

	Utah standards						Singapore standards	
Reporting Domain	Number of Utah Standards	Strong Grade-level Match	Partial Grade-level Match	Weak Grade-level Match	Different Singapore Grade Level	Utah only	Different Utah Grade Level	Singapore only
Grades K–8 Domains								
Number & Operations	67	34	23	4	-	6	11	2
Ratios & Proportional Reasoning	12	5	7	-	-	-	4	1
Algebraic Thinking	47	11	23	10	-	3	-	1
Functions	5	-	2	2	-	1	5	-
Geometry & Measurement	50	17	21	9	-	3	20	5
Statistics & Data Science	39	1	16	18	-	4	-	-
High School Domains								
Algebra	17	3	11	2	-	1	3	1
Functions	27	1	13	7	-	6	4	-
Number Systems	7	-	-	2	-	5	1	-
Geometry	24	4	2	4	3	11	4	2
Data Science	18	3	4	1	1	9	1	2
Matrices & Vectors	13	-	-	-	-	13	-	-



Table 8. Grade-level Alignment Summary Compared to the Massachusetts Mathematics Curriculum Framework

	Utah standards						Massachusetts standards	
Grade	Number of Utah Standards	Strong Grade-level Match	Partial Grade-level Match	Weak Grade-level Match	Different MA Grade Level	Utah only	Different Utah Grade Level	MA only
Kindergarten	22	15	3	-	-	4	-	-
Grade 1	26	18	6	-	1	1	-	-
Grade 2	25	22	2	-	-	1	-	1
Grade 3	27	22	3	-	-	2	-	2
Grade 4	31	26	1	3	-	1	-	3
Grade 5	26	19	2	3	-	2	-	1
Grade 6	26	25	1	-	-	-	-	-
Grade 7	28	24	4	-	-	-	-	1
Grade 8	31	26	4	-	-	1	-	-
Secondary 1	40	38	2	-	-	-	-	1
Secondary 2	43	40	3	-	-	-	-	1
Secondary 3	23	22	1	-	-	-	-	-



Table 9. Grade-level Alignment Summary Compared to the Minnesota Academic Standards in Mathematics

	Utah standards						Minnesota standards	
Grade	Number of Utah Standards	Strong Grade-level Match	Partial Grade-level Match	Weak Grade-level Match	Different MN Grade Level	Utah only	Different Utah Grade Level	MN only
Kindergarten	22	11	9	-	-	2	1	3
Grade 1	26	13	7	3	-	3	2	8
Grade 2	25	16	6	-	-	3	2	4
Grade 3	27	14	8	2	1	2	-	8
Grade 4	31	14	9	5	-	3	-	-
Grade 5	26	9	10	2	1	4	-	-
Grade 6	26	13	12	1	-	-	-	-
Grade 7	28	15	11	-	-	2	3	4
Grade 8	31	18	6	-	3	4	4	3
Secondary 1	40	15	10	6	5	4	-	-
Secondary 2	43	17	12	5	1	8	-	-
Secondary 3	23	10	8	2	-	3	-	-



Table 10. Grade-level Alignment Summary Compared to the Singapore Mathematics Syllabus

	Utah standards						Singapore standards	
Grade	Number of Utah Standards	Strong Grade-level Match	Partial Grade-level Match	Weak Grade-level Match	Different Singapore Grade Level	Utah only	Different Utah Grade Level	Singapore only
Kindergarten ²	-	-	-	-	-	-	-	-
Grade 1	26	5	15	6	-	-	2	-
Grade 2	25	7	12	5	-	1	2	1
Grade 3	27	12	8	6	-	1	3	2
Grade 4	31	12	12	7	-	-	1	3
Grade 5	26	12	8	6	-	1	6	-
Grade 6	26	4	9	4	-	4	-	2
Grade 7	28	9	16	3	-	-	12	-
Grade 8	31	3	11	7	-	10	13	-
Secondary 1	40	2	8	6	2	22	8	1
Secondary 2	43	4	13	5	2	19	5	4
Secondary 3	23	5	9	5	-	4	-	-

² Please note: Singapore standards for Pre-K and K were not easily available to complete this gap analysis. WestEd team is still investigating to see if these standards can be acquired. The current analysis does not include K standards for Singapore.



Utah Mathematical Practices

Finally, reviewers examined the alignment between Utah's Mathematical Practices and the Standards for Mathematical Practice (SMPs) that are embedded within various state standard including the Massachusetts Mathematics Curriculum Framework, and the Minnesota Academic Standards in Mathematics. The purpose of this analysis was not to determine whether the practices were identical, but rather to evaluate the extent to which Utah's Mathematical Practices reflect the same underlying expectations for mathematical reasoning, problem solving, communication, modeling, precision, and strategic use of tools that are emphasized across benchmark systems.

Table 11. Utah Draft Mathematical Practices alignment to Standards for Mathematical Practice

		Standards for Mathematical Practice (MA and MN)							
		SMP 1	SMP 2	SMP 3	SMP 4	SMP 5	SMP 6	SMP 7	SMP 8
Utah Mathematical Practices	MP 1	Not aligned							
	MP 2		Partially aligned						
	MP 3			Strongly aligned					
	MP 4				Partially aligned	Partially aligned			
	MP 5					Strongly aligned			
	MP 6	Partially aligned					Strongly aligned		
	MP 7							Partially aligned	
	MP 8	Partially aligned							Not aligned

Table 11 summarizes the alignment between Utah's Mathematical Practices and the Standards for Mathematical Practice (SMPs) used by three of the benchmark systems. Because Utah reorganizes and reframes some mathematical practices differently than the benchmark systems, some Utah practices align with multiple SMPs and vice versa.

Overall, the analysis suggests that Utah's Mathematical Practices capture many of the same underlying competencies emphasized in the benchmark systems, while organizing and articulating those competencies through a distinct framework and terminology. Both frameworks emphasize core mathematical habits such as reasoning quantitatively, constructing



and communicating mathematical arguments, attending to precision, identifying patterns and structure, and using tools strategically to solve problems. In many cases, Utah's Mathematical Practices address similar underlying competencies as the SMPs but organize and describe them differently. For example, Utah's Mathematical Practice 3, 'construct, justify, and communicate clear and reasonable arguments', closely parallels SMP 3, 'construct viable arguments and critique the reasoning of others', and Utah's Mathematical Practice 5, 'select and use tools appropriately and strategically', reflects many of the same expectations found in SMP 5 regarding the purposeful use of mathematical tools and representations. Similarly, Utah's MP 6 'attend to precision and reasonableness' is very similar to SMP 6, but extends beyond precision to explicitly emphasize evaluating the reasonableness of solutions and mathematical processes.

At the same time, the analysis identified several notable differences in emphasis. Utah places greater emphasis on inquiry, questioning, and conjecture through practices such as MP 1 (Ask questions to explore mathematical ideas) and MP 8 (Make conjectures and evaluate the results), whereas the SMPs place more explicit emphasis on perseverance in problem solving, monitoring progress, and recognizing regularity in repeated reasoning. Utah also broadens the meaning of certain practices relative to the SMPs. For example, Utah's MP 4 (Build and use models) encompasses a wide range of representations, including verbal, visual, contextual, symbolic, and physical models, while SMP 4 is more narrowly focused on mathematical modeling as a tool for representing and analyzing real-world situations. These differences generally reflect variations in framing and emphasis rather than fundamentally different expectations for student learning; however, they represent meaningful distinctions in how mathematical proficiency is conceptualized and communicated within the Utah framework.

Summary

This memo presents preliminary findings from the gap analyses comparing the UCS-M to the Massachusetts Mathematics Curriculum Framework, the Minnesota Academic Standards in Mathematics, and the Singapore Mathematics Syllabus. The analyses summarized herein focus on domain-level content coverage, areas of relative over- and under-representation across major mathematics domains, and grade-level comparisons of the UCS-M relative to the benchmark systems. In addition, this memo includes a comparison of Utah's Mathematical Practices (MPs) with the Standards for Mathematical Practice (SMPs) that are common across Massachusetts and Minnesota.

This memo is intended as a descriptive summary of preliminary findings and does not include recommendations regarding standards revision. The next phase of work will involve a more detailed standards-level review of the UCS-M, including analyses of rigor, clarity, measurability, instructional focus, developmental appropriateness, and the integration of mathematical practices within individual Utah mathematics standards. Findings from both phases of work will ultimately be synthesized into a final report that provides a comprehensive evaluation of the Utah standards and identify key strengths, differences, and potential areas for consideration.



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Domain	Topic
Counting & Cardinality	Counting sequence
Counting & Cardinality	
Counting & Cardinality	
Counting & Cardinality	Counting collections
Counting & Cardinality	
Counting & Cardinality	Reading & writing numbers
Counting & Cardinality	Comparing numbers
Counting & Cardinality	Subitizing
Algebraic Thinking	

Algebraic Thinking	Adding & subtracting within 10
Algebraic Thinking	Composing & decomposing
Algebraic Thinking	Fluency to 5
Number & Operations in Base 10	Place value foundations (11–19)
Geometry & Measurement	Shapes
Geometry & Measurement	
Geometry & Measurement	
Geometry & Measurement	Measurable attributes
Geometry & Measurement	

Data Science	Working with data
Data Science	
Data Science	
Data Science	

of Utah K Standards:
22

Utah
K.CC.1 Accurately recite numbers in sequence from 1 to 100 by ones and tens. Accurately count backward from 10. Attend to the counting structure. (MP 6, 7)
K.CC.2 Accurately count forward from a given number between 1 and 100. Attend to the counting structure. (MP 6, 7)
K.CC.7 Identify and justify an object's ordinal position, using precise mathematical language. Order quantities or numerals using the ordinal words "first" through "tenth." (MP 3, 6)
K.CC.3 Use one-to-one correspondence to accurately identify the quantity of objects in a group of 0–20. Understand that the last number stated represents the number of objects counted. (MP 6)
K.CC.4 Given a number 1–20, count out that many objects. When counting objects, build models to show that each successive number refers to a quantity that is one greater than the previous number. (MP 4)
K.CC.5 Read and write numbers 0 to 20 using base-ten numerals with precision. Represent a quantity of 0 to 20 objects with written numerals. (MP 6)
K.CC.6 Identify and compare quantities of objects and numerals up to 10 using the words "greater than," "less than," and "equal to." Use matching or counting strategies and reasoning to justify comparisons. (MP 3)
K.CC.8 Use patterns and structures to subitize quantities up to 10. (MP 7)
K.OA.1 Represent addition and subtraction with sums and minuends up to and including 10 using a variety of tools and models. Attend to the precision and reasonableness of results. (MP 4, 5, 6)

K.OA.2 Build and use models to solve addition and subtraction story problems with sums or minuends up to and including 10. Add or remove story context to solve problem type situations of adding to and taking from with result unknown, putting together with the total unknown, and putting together with both addends unknown. (MP 2, 4)

K.OA.3 Compose and decompose numbers less than or equal to 10 in multiple ways using a variety of models. Make sums to 10 using numbers 1-9. Make conjectures about why a number or set of objects can be broken apart in multiple ways. (MP 4, 8)

K.OA.4 Use strategies to add and subtract flexibly, accurately, and efficiently using numbers less than or equal to 5. (MP 6)

K.NBT.1 Build and use models to compose and decompose numbers from 11-19 into ten ones and some more ones. Represent structure from those models with math language and an equation (e.g., "Eighteen is the same as 10 and 8"; $18=10+8$). Describe the pattern that teen numbers are always composed of ten ones and some more ones. (MP 4, 7)

K.MG.2 Describe structures of two-dimensional and three-dimensional shapes, including names and attributes, regardless of size or orientation. Describe their relative positions in the environment. (MP 7)

K.MG.3 Analyze, compare, and sort two- and three-dimensional shapes and objects regardless of size or orientation. Justify the sort using informal language to describe similarities, differences, and other attributes (e.g., color, size, shape, number of sides). (MP 3)

K.MG.4 Build and use models to create two- and three-dimensional shapes and objects. Use simple shapes to form larger shapes. (MP 4)

K.MG.1 Describe several measurable attributes of a single object (e.g., length and weight), attending to precision and reasonableness. Compare two objects with a common measurable attribute to see which object has "more of"/ "less of" the attribute, and justify the results. (MP 3, 6)

K.MG.5 Recognize that clocks are tools used to measure and show time. Connect the use of clocks to daily routines and events. Recognize structures and features of clocks. (MP 7)

K.D.1 Ask questions as a class about a given topic that will lead to collecting, analyzing, and interpreting data gathered within the classroom. (MP 1)

K.D.2 Collect and organize data. Build data models with up to three categories. (MP 4)

K.D.3 Analyze data by observing patterns and structures in data models. Accurately count the number of objects or data points in each category. (MP 6, 7)

K.D.4 Interpret data to identify and justify which groups contain more, less, or the same amount by comparing the number in each category. (MP 3)

Strong alignment

Partial alignment

Different grade level

Weak alignment

Utah only—No MA analog

MA only

Different Utah grade level

Massachusetts
K.CC.1 — Count to 100 by ones and by tens.
K.CC.2 — Count forward beginning from a given number within the known sequence (instead of having to begin at one).
<i>No corresponding MA standard</i>
K.CC.4 — Understand the relationship between numbers and quantities; connect counting to cardinality. a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. c. Understand that each successive number name refers to a quantity that is one larger. Recognize the one more pattern of counting using objects.
K.CC.5 — Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects. [Also K.CC.4c — Understand that each successive number name refers to a quantity that is one larger.]
K.CC.3 — Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).
K.CC.6 — Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group for groups with up to 10 objects, e.g., by using matching and counting strategies. [Also K.CC.7 — Compare two numbers between 1 and 10 presented as written numerals.]
<i>No corresponding MA standard</i>
K.OA.1 — Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.

K.OA.2 — Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
K.OA.3 — Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$). [Also K.OA.4 — For any number from 1 to 9, find the number that makes 10 when added to the given number...]
K.OA.5 — Fluently add and subtract within 5, including zero.
K.NBT.1 — Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.
K.G.1 — Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to. K.G.2 — Correctly name shapes regardless of their orientation or overall size. [Also K.G.3 — Identify shapes as two-dimensional or three-dimensional.]
K.G.4 — Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).
K.G.5 — Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. K.G.6 — Compose simple shapes to form larger shapes.
K.MD.1 — Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. K.MD.2 — Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference.
<i>No corresponding MA standard</i>

<i>No corresponding MA standard</i>
K.MD.3 — Classify objects into given categories; count the numbers of objects in each category (up to and including 10) and sort the categories by count.
K.MD.3 — Classify objects into given categories; count the numbers of objects in each category (up to and including 10) and sort the categories by count.
K.MD.3 — Classify objects into given categories; count the numbers of objects in each category (up to and including 10) and sort the categories by count.

68.2%
 13.6%
 0.0%
 0.0%
 18.2%
 100.0%

 0
 0

Alignment
Strong
Strong
Utah only
Strong
Strong
Strong
Strong
Utah only
Strong

Strong
Strong
Strong
Strong
Strong
Strong
Strong
Strong
Utah only

Utah only
Partial
Partial
Partial

Commentary
Both require counting to 100 by ones and tens, the core skill, expressed nearly identically. Utah extends the standard by adding accurate backward counting from 10, which Massachusetts does not include in kindergarten.
Identical expectation: counting forward from any given number rather than always starting at one.
Massachusetts does not include ordinal position or ordinal words (first–tenth) in its kindergarten standards. This is content unique to Utah at this grade.
Utah's one-to-one correspondence and last-number-tells-the-count expectations map directly onto MA K.CC.4a and K.CC.4b. Utah caps the count at 20; MA K.CC.4 is not number-bounded.
Counting out a given quantity of objects matches MA K.CC.5 verbatim; the one-greater idea matches MA K.CC.4c. Utah combines content MA splits across two standards.
Same writing and representation expectation for 0–20. Utah additionally requires reading numerals; MA states writing only.
Comparing object groups to 10 with matching/counting matches MA K.CC.6; comparing numerals matches MA K.CC.7. Utah merges the two and adds an explicit justify-comparisons expectation.
Subitizing is not named as a standard in the Massachusetts kindergarten framework. Utah elevates it to an explicit Counting and Cardinality standard.
Both establish representing addition and subtraction with multiple tools and models. Utah specifies a sum/minuend ceiling of 10 (which MA places in K.OA.2).

Same core: solving addition and subtraction word problems within 10 using models. Utah additionally enumerates the specific problem types (result-unknown, both-addends-unknown, etc.).

Decomposing numbers to 10 in multiple ways matches MA K.OA.3; the make-sums-to-10 component matches MA K.OA.4. Utah adds a conjecturing expectation.

Both target fluent addition and subtraction within 5. Utah phrases fluency as flexible, accurate, and efficient strategy use.

Essentially identical place-value foundation for teen numbers, including the $18 = 10 + 8$ example. Utah adds an explicit pattern-description expectation.

Utah merges naming shapes regardless of orientation/size (MA K.G.2), the 2-D/3-D distinction (MA K.G.3), and relative position language (MA K.G.1) into one standard.

Both analyze and compare 2-D/3-D shapes using informal attribute language. Utah adds sorting and justification.

Utah combines building/modeling shapes (MA K.G.5) and composing simple shapes into larger ones (MA K.G.6).

Utah combines describing measurable attributes (MA K.MD.1) and directly comparing two objects (MA K.MD.2) into one standard. Utah asks students to justify rather than describe the difference.

Massachusetts does not introduce time or clocks until Grade 1 (1.MD.3). Utah includes a foundational, awareness-level clock standard in kindergarten.

Massachusetts kindergarten data work (K.MD.3) is limited to classifying and counting; it has no standard about posing investigative questions. Utah's data-science strand adds question-posing.

Both involve organizing objects/data into categories, but MA classifies into given categories and counts, while Utah emphasizes student collection and building data models with up to three categories.

The count-objects-in-each-category expectation matches MA K.MD.3, but Utah's analyze-patterns-and-structures framing goes beyond MA's classify-and-count standard.

Comparing the size of categories relates to MA's sort-categories-by-count, but Utah adds interpreting and justifying more/less/same, which is not explicit in MA.

Utah strand
8 #CC standards
4 #OA standards
1 #NBT standards
5 #MG standards
4 #D standards

Total

Total Utah standards						
	Strong	Partial	Weak		Different MA grade-level	
8	6	0	0		0	
4	4	0	0		0	
1	1	0	0		0	
5	4	0	0		0	
4	0	3	0		0	
22	15	3	0		0	

Utah only	Different Utah grade level	MA only
2	0	0
0	0	0
0	0	0
1	0	0
1	0	0
4	0	0

Domain	Topic
Algebraic Thinking	Add/subtract problem types
Algebraic Thinking	
Algebraic Thinking	
Algebraic Thinking	Two-digit place value & arithmetic
Algebraic Thinking	Patterns & algebraic thinking
Algebraic Thinking	
Algebraic Thinking	
Algebraic Thinking	Fluency / basic facts
Number & Operations in Base 10	Counting and estimating collections to 120
Number & Operations in Base 11	Two-digit place value & arithmetic

Number & Operations in Base 12	Two-digit place value & arithmetic
Number & Operations in Base 13	Two-digit place value & arithmetic
Number & Operations in Base 14	Two-digit place value & arithmetic
Number & Operations in Base 15	Two-digit place value & arithmetic
Number & Operations in Base 16	Two-digit place value & arithmetic
Geometry & Measurement	Length measurement
Geometry & Measurement	
Geometry & Measurement	Time (to half hour)
Geometry & Measurement	Money

Geometry & Measurement	Shape Composition & Decomposition
Geometry & Measurement	
Geometry & Measurement	
Data Science	Data investigations
Data Science	
Data Science	
Data Science	

of Utah Grade 1 Standards:
26

Utah
1.OA.1 Build and use models to solve addition and subtraction story problems with sums and minuends less than or equal to 20. Add or remove story context to solve problem type situations of adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions. (MP 2, 4)
1.OA.2 Build and use models to solve story problems involving adding three whole numbers with sums less than or equal to 20. Add or remove context to make sense of problems and solutions. (MP 2, 4)
1.OA.4 Describe and represent subtraction as an unknown-addend problem. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers, and justify the results. (MP 3, 7)
1.OA.3 Make and test conjectures about properties of addition. Add context to make sense of these properties as strategies to add and subtract. (MP 2, 8)
1.OA.5 Describe structures and relationships to connect counting to addition and subtraction. (MP 7)
1.OA.6 Add and subtract with sums and minuends less than or equal to 20. Connect and justify different strategies for addition and subtraction. (MP 3)
1.OA.8 Build and use models to make sense of the meaning of the equal sign. Make and test conjectures regarding whether addition and subtraction equations are true or false. (MP 4, 8)
1.OA.7 Use strategies to add and subtract flexibly, accurately, and efficiently with sums and minuends less than or equal to 10. (MP 6)
1.NBT.1 Count to 120 accurately, starting at any number. Represent a number of objects up to and including 120 with a written numeral. (MP 6)
1.NBT.2 Build and use models to represent and identify the number of tens and ones in a two-digit number. Show place value understanding by bundling ten ones to make a "ten." (MP 4)

1.NBT.3 Compare two two-digit numbers using models and/or place value understanding. Represent the relationship between the two numbers using comparison symbols $<$, $=$, and $>$. (MP 4, 7)

1.NBT.4 Build and use concrete and pictorial models to determine the sum of two two-digit numbers, a two-digit number and a one-digit number, and a two-digit number and a multiple of ten (less than or equal to 90). Use the models to represent and describe the structure of combining tens with tens, ones with ones, and composing ten ones to make a ten. Ask questions to compare concrete and pictorial models. (MP 4, 7, 8)

1.NBT.5 Build and use concrete and pictorial models to subtract a multiple of ten from a larger multiple of ten. Ask questions to compare concrete and pictorial models. (MP 1, 7)

1.NBT.6 Mentally find ten more or ten less than a given two-digit number and justify the result using place value language. (MP 3)

1.NBT.7 Use place value understanding to count forward or backward by tens from any number, and describe the pattern in the ones place and tens place when counting by ten. (MP 7)

1.MG.1 Select a tool to use as a non-standard length unit. Measure by repeating the non-standard length unit. Express the length of the object as a whole number. (MP 5)

1.MG.2 Construct a reasonable argument about the order of three objects sorted by length. Compare the lengths of two objects indirectly using a third object and justify the results. (MP 3)

1.MG.3 Tell and write time in hours and half-hours using analog and digital clocks, attending to precision and reasonableness. (MP 6, 3)

1.MG.4 Describe attributes of and identify common U.S. coins. Attend to precision when representing their comparative values and use appropriate notation (5¢). (MP 6)

1.MG.5 Ask questions to distinguish between defining and non-defining attributes of shapes. Given defining attribute(s), build and draw shapes that possess the defining attribute(s). (MP 1)
1.MG.6 Use structures, patterns, and relationships to create a composite shape formed by two- and three-dimensional shapes and compose new shapes from the composite shape. (MP 7)
1.MG.7 Build and use models to partition circles and rectangles into two or four equal shares. Justify, compare, and evaluate how decomposing a shape into more equal shares creates smaller shares. (MP 3, 4)
1.D.1 Determine a topic question and ask investigative questions that will lead to collecting, analyzing, and interpreting data within the context of the classroom. (MP 1)
1.D.2 Collect and organize data. Build data visualizations including bar graphs and picture graphs. When given a data set, build data models and visualizations. (MP 4)
1.D.3 Analyze data sets and data visualizations with up to three categories. Ask questions to make sense of the data representation. (MP 1)
1.D.4 Interpret data to answer investigative questions. Construct and justify arguments about the data. (MP 3)

Strong alignment
Partial alignment
Different grade level
Weak alignment
Utah only—No MA analog
Different Utah grade level
MA only

Massachusetts
1.OA.1 — Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations (number sentences) with a symbol for the unknown number to represent the problem.
1.OA.2 — Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
1.OA.4 — Understand subtraction as an unknown-addend problem. 1.OA.8 — Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.
1.OA.3 — Apply properties of operations to add. For example, when adding numbers order does not matter (Commutative property)... so $2 + 6 + 4 = 2 + 10 = 12$ (Associative property)... (Identity property of zero for addition).
1.OA.5 — Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
1.OA.6 — Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use mental strategies such as counting on; making 10; decomposing a number leading to a 10; using the relationship between addition and subtraction; and creating equivalent but easier or known sums.
1.OA.7 — Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false.
1.OA.6 — Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use mental strategies such as counting on; making 10; decomposing a number leading to a 10; using the relationship between addition and subtraction; and creating equivalent but easier or known sums.
1.NBT.1 — Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.
1.NBT.2 — Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: a. 10 can be thought of as a bundle of ten ones—called a “ten.” b. The numbers from 11 to 19 are composed of a ten and one...nine ones. c. The numbers 10, 20, 30, ... 90 refer to one...nine tens (and 0 ones).

1.NBT.3 — Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.

1.NBT.4 — Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings, and strategies based on place value...; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

1.NBT.6 — Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value...; relate the strategy to a written method and explain the reasoning used.

1.NBT.5 — Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. Identify arithmetic patterns of 10 more and 10 less than using strategies based on place value.

1.NBT.5 — Given a two-digit number, mentally find 10 more or 10 less than the number...; Identify arithmetic patterns of 10 more and 10 less than using strategies based on place value.

1.MD.2 — Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps.

1.MD.1 — Order three objects by length; compare the lengths of two objects indirectly by using a third object.

1.MD.3 — Tell and write time in hours and half-hours using analog and digital clocks.

1.MD.5 — Identify the values of all U.S. coins and know their comparative values (e.g., a dime is of greater value than a nickel). Find equivalent values (e.g., a nickel is equivalent to five pennies). Use appropriate notation (e.g., 69¢). Use the values of coins in the solutions of problems (up to 100¢).

1.G.1 — Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes that possess defining attributes.
1.G.2 — Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.
1.G.3 — Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.
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1.MD.4 — Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.
1.MD.4 — Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.
1.MD.4 — Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

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Alignment
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Strong
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Partial
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Partial

Strong
Strong
Strong
Utah only
Partial
Partial
Partial

Commentary
Nearly identical: addition/subtraction word problems within 20, all problem types, unknowns in all positions. Utah defers mastery of start-unknown problems to Grade 2.
Both require solving word problems that add three whole numbers with a sum to 20.
Utah combines understanding subtraction as an unknown addend (MA 1.OA.4) with finding the unknown in an equation of three whole numbers (MA 1.OA.8).
Same content domain: properties of addition (commutative, associative, identity) used as strategies. Utah frames the work as making and testing conjectures.
Both connect counting to addition and subtraction.
Both add and subtract within 20 using and justifying multiple strategies. MA folds fluency-within-10 into this standard; Utah breaks that out into 1.OA.7.
Both center on the meaning of the equal sign and judging equations true or false.
Utah's fluency-within-10 standard corresponds to the 'demonstrating fluency for addition and subtraction within 10' clause embedded in MA 1.OA.6.
Identical expectation: counting to 120 from any starting number and representing quantities with written numerals.
Both build two-digit place value, including bundling ten ones to make a ten. MA adds explicit special cases for teen numbers and the decade numbers.

Both compare two-digit numbers by place value and record the result with $>$, $=$, and $<$.
Both add within 100 with concrete/pictorial models, combining like place values and composing a ten. Utah also names adding two two-digit numbers explicitly.
Both subtract a multiple of ten from a multiple of ten using concrete/pictorial models.
Both mentally find 10 more or 10 less than a two-digit number and explain/justify using place value.
The pattern component overlaps MA 1.NBT.5's '10 more / 10 less' patterns, but Utah's explicit count-by-tens-forward-and-backward-from-any-number expectation has no dedicated Grade 1 standard in MA (MA addresses skip-counting by tens at 2.NBT.2).
Both iterate a non-standard length unit and express length as a whole number of units.
Both order three objects by length and compare two objects indirectly via a third. Utah adds the argument/justification expectation.
Identical: telling and writing time to the hour and half-hour on analog and digital clocks.
Both identify coins, their comparative values, and proper notation. MA goes further, requiring equivalent values and solving coin problems up to 100¢, which Utah introduces later (2.MG.7).

Both distinguish defining from non-defining attributes and build/draw shapes that possess defining attributes.
Both compose 2-D and 3-D shapes into composite shapes and create new shapes from them.
Both partition circles and rectangles into two and four equal shares and reason that more shares means smaller shares. MA additionally specifies the halves/fourths/quarters vocabulary.
Massachusetts has no Grade 1 standard about determining a topic question or posing investigative questions; its data work (1.MD.4) begins with organizing data. This is unique to Utah's data-science strand.
Both organize and represent data, but Utah introduces specific bar and picture graphs in Grade 1, whereas MA does not name those graph types until Grade 2 (2.MD.10).
The up-to-three-categories scope and interpreting data match MA 1.MD.4, but Utah separates analysis into its own standard within a multi-step statistical investigation cycle.
Interpreting data to answer questions overlaps MA 1.MD.4's ask-and-answer expectation, but Utah's construct-and-justify-arguments component goes beyond the MA standard.

Utah strand	Total Utah standards
#OA standards	8
#NBT standards	7
#MG standards	7
#D standards	4
Total	26

Strong	Partial	Weak	Different MA grade-level	Utah only
8	0	0	0	0
5	2	0	0	0
5	1	0	1	0
0	3	0	0	1
18	6	0	1	1

Different Utah grade level	MA only
0	0
0	0
0	0
0	0
0	0

Domain	Topic
Algebraic Thinking	Arrays, Repeated Addition, & Multiplicative Structure
Algebraic Thinking	
Algebraic Thinking	Addition & Subtraction Within 1000
Algebraic Thinking	Addition & Subtraction Within 1001
Number & Operations in Base 10	Place value & base ten
Number & Operations in Base 11	
Number & Operations in Base 12	
Number & Operations in Base 13	Patterns
Number & Operations in Base 14	Addition & Subtraction Within 1002

Number & Operations in Base 15	Addition & Subtraction Within 1003
Number & Operations in Base 16	Addition & Subtraction Within 1004
Geometry & Measurement	Length in standard units
Geometry & Measurement	
Geometry & Measurement	
Geometry & Measurement	
Geometry & Measurement	
Geometry & Measurement	Time
Geometry & Measurement	Money
Geometry & Measurement	Shapes
Geometry & Measurement	Arrays, Repeated Addition, & Multiplicative Structure

Geometry & Measurement	Fractions & partitioning
Data Science	Data investigations
Data Science	
Data Science	
Data Science	
Data Science	

of Utah Grade 2 Standards:
25

Utah
2.OA.3 Describe and represent structures and patterns to determine if a group of up to 20 objects has an odd or even number of items by pairing them or counting by twos. (MP 7)
2.OA.4 Build and use models involving repeated addition to determine the total number of objects in rectangular arrays with up to 5 rows and up to 5 columns. Describe and represent the structures and patterns of the arrays. Make and evaluate conjectures about whether the sums are the same when adding by row or column. (MP 4, 7, 8)
2.OA.1 Build and use models to solve one-step addition and subtraction story problems with sums and minuends less than or equal to 100, and two-step addition and subtraction story problems with sums and minuends less than or equal to 20. Add or remove story context to solve problem type situations with unknowns in all positions while attending to the meaning of the equal sign. (MP 2, 4)
2.OA.2 Use strategies and properties to add and subtract flexibly, accurately, and efficiently with sums and minuends less than or equal to 20. Know from memory all sums of two one-digit numbers. (MP 6)
2.NBT.1 Show place value understanding by bundling ten 10s to make a "hundred." Use a variety of models to represent the amount of hundreds, tens, and ones in a three-digit number. Identify the number of hundreds, tens, and ones in a three-digit number and describe the value of each digit. (MP 4)
2.NBT.3 Read three-digit whole numbers and represent the place value structure in those numbers using numerals, base 10 word form, and expanded form. (MP 7)
2.NBT.4 Compare two three-digit numbers using models and/or place value understanding. Represent the relationship between the two numbers using comparison symbols $<$, $=$, and $>$. (MP 4, 7)
2.NBT.2 Count within 1,000, making conjectures about counting patterns; Skip-count by twos, fives, tens, and hundreds. (MP 8)
2.NBT.5 Use numerical strategies to determine the sum of up to four two-digit numbers, and the difference of two two-digit numbers flexibly, accurately, and efficiently. Justify a chosen strategy using the relationship between addition and subtraction, properties of addition, and/or place value language. (MP 3, 6)

2.NBT.6 Build and use concrete and pictorial models to determine the sums and differences of three-digit numbers with sums and minuends up to and including 999. Use the models to represent and describe the structure of combining hundreds with hundreds, tens with tens, ones with ones, and composing and decomposing tens and hundreds. Ask questions to compare concrete and pictorial models with efficient numerical strategies. (MP 1, 4, 7)

2.NBT.7 Mentally add and subtract multiples of 10 or 100 from a three-digit number and justify the result using place value language. (MP 3)

2.MG.1 Select and use appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes to measure the length of objects to the nearest whole unit. (MP 5)

2.MG.2 Describe and represent the length of an object using two different units of measure. Describe the relationship of the two measurements and relate them to the units chosen. (MP 7)

2.MG.3 Construct, justify, and communicate clear and reasonable arguments when estimating lengths using inches, feet, centimeters, and meters. (MP 3)

2.MG.4 Measure with precision to determine how much longer one object is than another. Express the difference in length using a standard unit. (MP 6)

2.MG.5 Build and use a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2,... as a model to represent whole numbers as lengths from zero. Strategically use an open number line as a tool to model and solve whole-number addition and subtraction equations and word problems within 100. (MP 4, 5)

2.MG.6 Attend to precision when telling and writing time to the nearest five minutes. Add context to determine when to use a.m. and p.m., attending to reasonableness. (MP 2, 6)

2.MG.7 Add or remove context when solving problems involving dollar bills, quarters, dimes, nickels, and pennies. (MP 2)

2.MG.8 Ask questions to identify and describe shapes having specific attributes. Build and draw shapes that possess specified attributes. (MP 1)

2.MG.9 Build and use models to partition a rectangle into rows and columns of same-size squares and count to find the total number of squares. (MP 4)

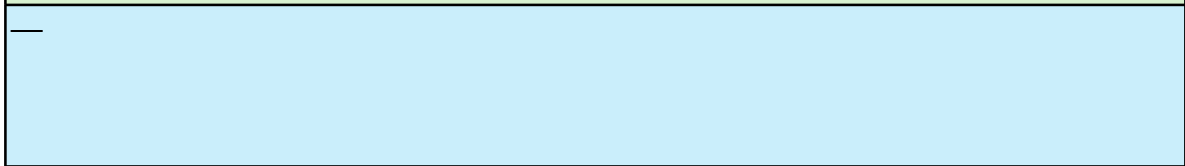
2.MG.10 Describe and represent structures, patterns and relationships when partitioning two-dimensional shapes into two, three, or four equal shares; describe the shares using the words halves, thirds, a fourth of, quarters, etc. identical wholes need not have the same shape. (MP 7)
2.D.1 Determine a topic question and ask investigative questions that will lead to collecting, analyzing, and interpreting data within the context of classroom and grade. (MP 1)
2.D.2 Collect and organize data. Build data visualizations including bar graphs and pictographs with single-unit scales. Ask questions to consider a given data set about a classroom or grade level context, and organize that data using different variables. (MP 1, 4)
2.D.3 Analyze data sets and single-unit scale data visualizations using features such as titles, labels, and legends. Ask questions to make sense of the data. (MP 1)
2.D.4 Interpret data to answer investigative questions. Construct and justify arguments about the data. Make conjectures about the impact missing data may have on interpretation of the data. (MP 3, 8)
<i>No corresponding Utah standard</i>

Strong alignment
Partial alignment
Different grade level
Weak alignment
Utah only—No Massachusetts analog
Different Utah grade level
Massachusetts only

Massachusetts
2.NBT.3 — Read and write numbers to 1,000 using base-ten numerals, number names, and expanded form.
2.NBT.4 — Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.
2.OA.1 — Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
2.OA.2 — Fluently add and subtract within 20 using mental strategies. By end of grade 2, know from memory all sums of two single-digit numbers and related differences.
2.NBT.1 — Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. a. 100 can be thought of as a bundle of ten tens—called a “hundred.” b. The numbers 100, 200, ... 900 refer to one...nine hundreds (and 0 tens and 0 ones).
2.NBT.3 — Read and write numbers to 1,000 using base-ten numerals, number names, and expanded form.
2.NBT.4 — Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.
2.NBT.2 — Count within 1,000; skip-count by 5s, 10s, and 100s. Identify patterns in skip counting starting at any number.
2.NBT.5 — Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.6 — Add up to four two-digit numbers using strategies based on place value and properties of operations. [Justification overlaps 2.NBT.9 — Explain why addition and subtraction strategies work...]

2.NBT.7 — Add and subtract within 1,000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
2.NBT.8 — Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.
2.MD.1 — Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
2.MD.2 — Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.
2.MD.3 — Estimate lengths using units of inches, feet, centimeters, and meters.
2.MD.4 — Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.
2.MD.6 — Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram. 2.MD.5 — Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units...
2.MD.7 — Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. a. Know the relationships of time, including seconds in a minute, minutes in an hour, hours in a day, days in a week; days in a month and a year and approximate number of weeks in a month and weeks in a year.
2.MD.8 — Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies (up to \$10), using \$ and ¢ symbols appropriately and whole dollar amounts.
2.G.1 — Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, squares, rectangles, rhombuses, trapezoids, pentagons, hexagons, and cubes.
2.G.2 — Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.

2.G.3 — Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.



2.MD.10 — Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems, using information presented in a bar graph.

2.MD.10 — Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems, using information presented in a bar graph.

2.MD.10 — Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems, using information presented in a bar graph.

2.MD.9 — Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Organize and record the data on a line plot (dot plot) where the horizontal scale is marked off in whole-number units.

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Alignment	Commentary
Strong	Both read and represent numbers using base-ten numerals, number/word names, and expanded form.
Strong	Both compare three-digit numbers by place value and record with $>$, $=$, and $<$.
Strong	Both solve one- and two-step add/subtract word problems with unknowns in all positions. Utah caps one-step problems at 100 but limits two-step problems to 20, whereas MA allows two-step problems within 100.
Strong	Both require fluency within 20 and knowing from memory all single-digit sums.
Strong	Both build three-digit place value, including bundling ten tens as a hundred and identifying the value of each digit.
Strong	Both read and represent numbers using base-ten numerals, number/word names, and expanded form.
Strong	Both compare three-digit numbers by place value and record with $>$, $=$, and $<$.
Strong	Both count within 1,000 and skip-count, identifying patterns. Utah additionally includes skip-counting by twos.
Strong	Utah combines fluent add/subtract within 100 (MA 2.NBT.5) and adding up to four two-digit numbers (MA 2.NBT.6); its justify-a-strategy clause also reflects MA 2.NBT.9.

Strong	Both add and subtract three-digit numbers with concrete/pictorial models, combining like place values and composing/decomposing. Utah caps at 999; MA states within 1,000.
Strong	Both mentally add/subtract 10 or 100 to/from a three-digit number. Utah generalizes to multiples of 10 or 100 and adds a justify-with-place-value expectation.
Strong	Both select and use standard measuring tools to measure length.
Strong	Both measure an object with two different units and relate the measurements to the unit size.
Strong	Both estimate lengths in inches, feet, centimeters, and meters. Utah adds an argument/justification expectation.
Strong	Both measure to find how much longer one object is than another, expressed in a standard unit.
Strong	Utah combines representing numbers as lengths on a number line (MA 2.MD.6) with using the number line to solve add/subtract within 100 (MA 2.MD.5/2.MD.6).
Strong	Both tell and write time to the nearest five minutes using a.m. and p.m. MA additionally requires knowing time-unit relationships (subpart a), which Utah does not include.
Strong	Both solve money word problems with bills and coins. MA specifies a \$10 ceiling and use of \$ and ¢ symbols.
Strong	Both recognize/identify and draw shapes by specified attributes. MA names a specific inventory of shapes to identify; Utah states the expectation generally.
Strong	Both partition a rectangle into rows and columns of same-size squares and count the total.

Strong	Both partition shapes into two, three, or four equal shares with halves/thirds/fourths vocabulary and recognize equal shares need not be congruent.
Utah only	Massachusetts has no Grade 2 standard about determining a topic question or posing investigative questions. This is unique to Utah's data-science strand.
Strong	Both build single-unit-scale bar graphs and picture graphs to represent data. Utah adds collecting/organizing data and reorganizing by different variables.
Partial	Both analyze single-unit-scale graphs, but Utah's emphasis on graph features (titles, labels, legends) is not part of the MA standard, which centers on solving problems from a bar graph.
Partial	Interpreting data to answer questions overlaps MA 2.MD.10's solve-problems-from-a-graph expectation, but Utah's construct-and-justify-arguments and missing-data reasoning have no MA counterpart.
Massachusetts only	Massachusetts requires generating measurement data and recording it on a line plot (dot plot). Utah's Grade 2 data standards use bar graphs and pictographs and include no line-plot-from-measurement-data standard.

Utah strand	Total Utah standards
#OA standards	4
#NBT standards	7
#MG standards	10
#D standards	4
Total	25

Strong	Partial	Weak	Different MA grade-level	Utah only
4	0	0	0	0
7	0	0	0	0
10	0	0	0	0
1	2	0	0	1
22	2	0	0	1

Different Utah grade level	MA only
0	0
0	0
0	0
0	1
0	1

Domain	Topic
Algebraic Thinking	Multiplication & division within 100
Algebraic Thinking	Multiplication & division within 100
Algebraic Thinking	Multiplication & division within 100
Algebraic Thinking	Multiplication & division within 100
Algebraic Thinking	Multiplication & division within 100
Algebraic Thinking	Four operations
Algebraic Thinking	
Algebraic Thinking	Basic fact fluency
Number & Operations in Base 10	Addition & subtraction within 1000

Number & Operations in Base 12	& place value
Number & Operations in Base 11	Estimation & rounding
Number & Operations in Base 13	Multiplication & division within 100
Number & Operations--Fractions	Fractions as numbers
Number & Operations--Fractions	
Number & Operations--Fractions	Equivalent fractions & comparing fractions
Number & Operations--Fractions	
Geometry & Measurement	Length, mass, volume, & time
Geometry & Measurement	

Geometry & Measurement	Time to the minute
Geometry & Measurement	Area and perimeter
Geometry & Measurement	
Geometry & Measurement	
Geometry & Measurement	
Geometry & Measurement	
Data Science	Data investigations
Data Science	
Data Science	

Data Science	
Data Science	

of Utah Grade 3 Standards:
27

Utah
3.OA.1 Build and use models to find and interpret the products of whole numbers. (MP 4)
3.OA.2 Build and use models to find and interpret whole-number quotients. (MP 4)
3.OA.3 Solve multiplication and division story problems with products or dividends less than or equal to 100 and whole number quotients, using a variety of models. Add or remove context to solve situations involving equal groups, arrays, and measurement quantities. (MP 2, 4)
3.OA.4 Evaluate the unknown whole number in a multiplication or division equation. Represent division as an unknown-factor problem, and describe the relationship between multiplication and division. (MP 7)
3.OA.5 Make and assess conjectures about the properties of multiplication. Add context to make sense of these properties as strategies to multiply and divide with products and dividends less than or equal to 100. (MP 2, 8)
3.OA.7 Build and use models to solve two-step story problems involving whole numbers and having whole-number answers using the four operations, and attend to the reasonableness of answers. Remove context to represent situations as equations with a variable standing in for the unknown quantity. (MP 2, 4, 6)
<i>No corresponding Utah standard</i>
3.OA.6 Multiply and divide flexibly, accurately, and efficiently, with products, dividends, and divisors up to and including 100, and quotients up to and including 10. Know from memory all products of two one-digit numbers. (MP 6)
3.NBT.1 Describe and represent place value structure by bundling ten 100s to make a thousand. Represent the amount of thousands, hundreds, tens, and ones in a 4-digit number, and describe the value of each. (MP 7)

3.NBT.3 Determine sums and differences of three-digit whole numbers using numerical strategies flexibly, accurately, and efficiently. Justify a chosen strategy with place value language. (MP 3, 6)

3.NBT.2 Use models to round 2- or 3-digit whole numbers to the nearest 10 or 100 in and out of context. Determine if rounding is appropriate for a given situation and justify the reasoning. (MP 2, 3, 4)

3.NBT.4 Find the product of a one-digit whole number and a multiple of 10 (10–90). Make and test conjectures to generalize patterns that occur when multiplying by a multiple of ten. (MP 8)

3.NF.1 Describe and represent a fraction, $\frac{a}{b}$, as a numerator and a non-zero denominator, including unit fractions and fractions equal to whole numbers. Compose and decompose a fraction using unit fractions. Identify the meaning of the whole for a given context. (MP 7)

3.NF.2 Build and use number line models to represent fractions, using unit fractions as intervals. Connect number line models with area models to make sense of fractions. (MP 4)

3.NF.3 Build and use models to make sense of and generate equivalent fractions including whole numbers. Justify why equivalent fractions must reference the same whole to be equivalent. (MP 3, 4)

3.NF.4 Compare fractions with like numerators or like denominators, and justify the comparisons using models and/or by reasoning about their size. (MP 3, 4)

3.MG.1 Make reasonable estimates about length, weight, and liquid volume. Select and use tools appropriately and strategically to find precise measurements. (MP 5, 6)

3.MG.3 Add or remove context to solve one-step story problems involving length, liquid volume, mass, and time. (MP 6)

3.MG.2 Attend to precision when telling and writing time to the nearest minute. (MP 6)

3.MG.4 Recognize area and perimeter as attributes of plane figures. Build and use models to understand the concept of unit squares and area. Select and use tools strategically and appropriately to distinguish between linear (perimeter) and area measures. Use tiling to show that the area of a rectangle is the same as would be found by multiplying side lengths. (MP 4, 5)

3.MG.5 Build and use area models to represent the distributive property and relate the representations to the operations of addition and multiplication. (MP 4)

3.MG.6 Add and remove context to solve real-world and mathematical problems involving perimeters of simple polygons and rectangular areas. Make and evaluate conjectures about rectangles with the same perimeter and different areas or with the same area and different perimeters. Describe how area and perimeter are related. (MP 4, 8)

3.MG.7 Describe and represent shared attributes of shapes in a category, and recognize that the shared attributes define the larger category. Build models of quadrilaterals that do not belong to a given subcategory. (MP 4, 7)

3.MG.8 Attend to precision when partitioning shapes into parts with equal areas and expressing the area of each part as a unit fraction of the whole. (MP 6)

3.D.1 Determine a topic question and ask investigative questions that will lead to collecting, analyzing, and interpreting data. Identify whether the question asked will result in quantitative or categorical data. (MP 1)

3.D.2 Select and use tools strategically to collect and organize data. Build data visualizations using scales of 2s, 5s, and 10s. Represent a data set with three or more categories. Ask questions to consider a given data set. Identify data as quantitative or categorical. (MP 1, 5)

3.D.3 Make and evaluate conjectures about benefits and drawbacks of different visualizations and scales used to analyze a set of data. (MP 6, 8)

3.D.4 Interpret data, including scaled visualizations, to answer investigative questions. Construct and justify arguments about the data. Identify patterns, trends, and outliers in the data. Identify ways to refine investigative questions, data collection, visualization, or analysis. (MP 3)

No corresponding Utah standard

Strong alignment
Partial alignment—Utah deeper
Different grade level
Weak alignment
Utah only—No Massachusetts analog

Different Utah grade level
Massachusetts only

Massachusetts
3.OA.1 — Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in five groups of seven objects each.
3.OA.2 — Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares [...].
3.OA.3 — Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
3.OA.4 — Determine the unknown whole number in a multiplication or division equation relating three whole numbers [...]. 3.OA.6 — Understand division as an unknown-factor problem. For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8.
3.OA.5 — Apply properties of operations to multiply. [...] (Commutative property [...]; Associative property [...]; Distributive property [...]; Identity property of 1 for multiplication).
3.OA.8 — Solve two-step word problems using the four operations for problems posed with whole numbers and having whole number answers. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies, including rounding.
3.OA.9 — Identify arithmetic patterns (including patterns in the addition table or multiplication table) and explain them using properties of operations. For example, observe that 4 times a number is always even [...].
3.OA.7 — Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division or properties of operations. By the end of grade 3, know from memory all products of two single-digit numbers and related division facts.
<i>No corresponding MA standard</i>

3.NBT.2 — Fluently add and subtract within 1,000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

3.NBT.1 — Use place value understanding to round whole numbers to the nearest 10 or 100.

3.NBT.3 — Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9×80 , 5×60) using strategies based on place value and properties of operations.

3.NF.1 — Understand a fraction $1/b$ as the quantity formed by 1 part when a whole (a single unit) is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.

3.NF.2 — Understand a fraction as a number on the number line; represent fractions on a number line diagram. a. Represent a unit fraction $1/b$ [...] by partitioning $[0,1]$ into b equal parts. b. Represent a fraction a/b [...] by marking off a lengths $1/b$ from 0.

3.NF.3 — Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. a. Understand two fractions as equivalent if they are the same size, or the same point on a number line. b. Recognize and generate simple equivalent fractions [...]. c. Express whole numbers as fractions [...].

3.NF.3d — Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions [...].

3.MD.2 — Measure and estimate liquid volumes and masses of objects using standard metric units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes [...].

3.MD.2 — [...] Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same metric units [...]. 3.MD.1 — [...] Solve word problems involving addition and subtraction of time intervals in minutes [...].

3.MD.1 — Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes [...].

3.MD.5 — Recognize area as an attribute of plane figures and understand concepts of area measurement (unit square). 3.MD.6 — Measure areas by counting unit squares. 3.MD.7a — Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.

3.MD.7c — Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.

3.MD.8 — Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

3.G.1 — Understand that shapes in different categories may share attributes, and that the shared attributes can define a larger category (e.g., quadrilaterals). Compare and classify shapes by their sides and angles. Recognize rhombuses, rectangles, squares, and trapezoids as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.

3.G.2 — Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.

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3.MD.3 — Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs.

3.MD.3 — Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs.

3.MD.3 — [...] Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs.

3.MD.4 — Generate measurement data by measuring lengths of objects using rulers marked with halves and fourths of an inch. Record and show the data by making a line plot (dot plot), where the horizontal scale is marked off in appropriate units—whole numbers, halves, or fourths.

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100.0%

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2

Alignment
Strong
Strong
Strong
Strong
Strong
Strong
Massachusetts only
Strong
Utah only

Strong
Strong
Strong
Strong
Strong
Strong
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Partial
Strong

Strong
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Strong
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Utah only
Strong
Partial

Partial

Massachusetts only

Commentary
Both interpret products of whole numbers using grouping models.
Both interpret whole-number quotients as equal-sharing or equal-grouping situations.
Both solve multiplication and division word problems within 100 across equal-groups, array, and measurement situations.
Utah combines finding the unknown in an equation (MA 3.OA.4) with understanding division as an unknown-factor problem (MA 3.OA.6).
Both develop the properties of multiplication (commutative, associative, distributive, identity) as strategies. Utah frames the work as making and assessing conjectures.
Both solve two-step whole-number word problems with the four operations, represent them with a variable equation, and assess reasonableness.
Massachusetts has a dedicated standard for identifying and explaining arithmetic patterns in the addition/multiplication tables. Utah's Grade 3 pattern work is limited to multiplying by multiples of ten (3.NBT.4); a general arithmetic-pattern standard appears in Utah's later grades.
Both require fluent multiplication and division within 100 and knowing all single-digit products from memory.
Massachusetts Grade 3 does not extend place value to the thousands/four-digit numbers; its Grade 3 base-ten work stays within 1,000. Massachusetts addresses four-digit-and-larger place value in Grade 4 (4.NBT.1–2).

Both fluently add and subtract three-digit numbers (within 1,000) using place-value strategies.

Both round whole numbers to the nearest 10 or 100 using place value. Utah adds judging when rounding is appropriate.

Both multiply a one-digit number by a multiple of 10 (10–90) using place-value patterns.

Both define a/b in terms of unit fractions $1/b$ and the whole. Utah's 'fractions equal to whole numbers' also connects to MA 3.NF.3c.

Both represent fractions on a number line using unit-fraction intervals.

Both generate and explain equivalent fractions, including whole numbers expressed as fractions.

Both compare fractions with like numerators or like denominators by reasoning about size and justify the result.

Utah's estimation of liquid volume and weight/mass overlaps MA 3.MD.2, but Utah also includes length estimation, which MA addresses in earlier grades rather than in Grade 3.

Both solve one-step measurement word problems. MA splits these across mass/volume (3.MD.2) and time (3.MD.1); Utah also names length, which is not in MA's Grade 3 measurement word problems.

Both tell and write time to the nearest minute. MA 3.MD.1 also includes time-interval word problems, which Utah places in 3.MG.3.
Utah combines recognizing area, unit squares, counting squares, and the tiling-equals-multiplication idea (MA 3.MD.5, 3.MD.6, 3.MD.7a) and adds distinguishing linear from area measures.
Both use area models to represent the distributive property, linking addition and multiplication.
Both solve perimeter problems and contrast rectangles with equal perimeter/different area (and vice versa).
Both reason that shared attributes define larger shape categories and draw quadrilaterals outside a given subcategory.
Both partition shapes into equal areas and express each part as a unit fraction of the whole.
Massachusetts Grade 3 has no standard for posing investigative questions or classifying data as quantitative vs. categorical; its data standards begin with drawing graphs. This reflects Utah's distinct data-science strand.
Both build scaled picture and bar graphs for multi-category data. Utah adds collecting data and classifying it as quantitative/categorical.
Analyzing scaled graphs overlaps MA 3.MD.3, but Utah's evaluation of the benefits and drawbacks of different visualizations and scales has no MA counterpart.

Interpreting scaled graphs to answer questions overlaps MA 3.MD.3, but Utah's argument construction, identifying trends/outliers, and refining the investigation extend well beyond it.

Massachusetts requires generating measurement data and displaying it on a line plot with fractional scale. Utah's Grade 3 data strand uses bar graphs and pictographs and includes no measurement-data line plot.

Utah strand
7 #OA standards
4 #NBT standards
4 #NF standards
8 #MG standards
4 #D standards

Total

Total Utah standards	Strong	Partial	Weak	Different MA grade-level
7	7	0	0	0
4	3	0	0	0
4	4	0	0	0
8	7	1	0	0
4	1	2	0	0
27	22	3	0	0

Utah only	Different Utah grade level	MA only
0	0	1
1	0	0
0	0	0
0	0	0
1	0	1
2	0	2

Domain	Topic
Algebraic Thinking	Solve multiplication problems
Algebraic Thinking	
Algebraic Thinking	Solve problems using the four operations
Algebraic Thinking	
Algebraic Thinking	Factors and multiples
Algebraic Thinking	Generate & describe patterns
Number & Operations in Base 10	Place value to millions
Number & Operations in Base 11	
Number & Operations in Base 12	

Number & Operations in Base 13	
Number & Operations in Base 14	Add and subtract whole numbers
Number & Operations in Base 15	Multi-digit multiplication / division
Number & Operations in Base 16	
Number & Operations--Fractions	Equivalent fractions / composing & decomposing fractions
Number & Operations--Fractions	
Number & Operations--Fractions	
Number & Operations--Fractions	Add/subtract fractions with like denominators
Number & Operations--Fractions	Multiply fraction by whole number

Number & Operations--Fractions	Decimals to hundredths
Number & Operations--Fractions	
Number & Operations--Fractions	
Geometry & Measurement	Area & perimeter
Geometry & Measurement	Angles & lines
Geometry & Measurement	
Geometry & Measurement	
Geometry & Measurement	
Geometry & Measurement	

Geometry & Measurement	Measurement & Symmetry
Geometry & Measurement	
Geometry & Measurement	
Data Science	Data investigations
Data Science	
Data Science	
Data Science	

of Utah Grade 1 Standards:

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Utah
4.OA.1 Build and use models to visualize a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations. (MP 4, 7)
4.OA.2 Solve story problems involving multiplicative comparison by building and using models, including drawings and equations with a symbol for the unknown number. Make and evaluate conjectures about the difference between multiplicative and additive comparison. (MP 4, 8)
4.OA.3 Use and name properties of operations to justify strategies used to solve problems involving the four operations. (MP 3)
4.OA.4 Build and use models to solve multi-step story problems involving whole numbers using the four operations, including problems in which remainders must be interpreted. Attend to the reasonableness of answers. Remove context to represent situations as equations with a variable standing in for the unknown quantity. (MP 2, 4, 6)
4.OA.5 Find factors and multiples of whole numbers. Make and test conjectures about the relationship between any whole number and its factors. (MP 8)
4.OA.6 Generate a number or shape pattern based on a given rule. Describe and represent the features of the pattern that are not explicitly stated in the rule itself. Make and test conjectures about how the pattern will continue. (MP 7, 8)
4.NBT.1 Describe the structure of place value by explaining how the value of one place represents ten times more than the place to its right. Represent those patterns with a statement of multiplicative comparison. (MP 7)
4.NBT.2 Read multi-digit whole numbers up to and including 1,000,000. Represent multi-digit whole numbers using numerals and expanded form. (MP 7)
4.NBT.3 Compare two whole numbers with up to 6 digits and represent the relationship between two numbers using comparison symbols $<$, $=$, and $>$. (MP 7)

4.NBT.4 Apply knowledge of place value structure to round whole numbers up to and including six digits in and out of context. Justify whether rounding is appropriate in a given situation. (MP 2,

4.NBT.5 Use efficient algorithms to determine sums and differences of multi-digit whole numbers in real-world contexts and equations flexibly, accurately, and efficiently. Determine if sums and differences are reasonable. (MP 2, 6)

4.NBT.6 Develop visual and numerical models based on place value and/or the properties of multiplication to multiply a whole number of up to four digits by a one-digit whole number, and to multiply two two-digit numbers. (MP 4)

4.NBT.7 Develop visual and numerical models based on place value and/or the relationship between multiplication and division to divide up to a three-digit number by a one-digit number. (MP 4)

4.NF.1 Compose and decompose fractions, mixed numbers and fractions greater than one by building and using models. Represent fractions as the sum of fractions with the same denominator in more than one way. Justify the equivalence with equations. Recognize that a value can be expressed as a fraction greater than one and an equivalent mixed number. (MP 3, 4)

4.NF.2 Recognize and generate equivalent fractions, connecting numerical strategies to visual fraction models. Make and test conjectures about what happens to a fraction when the numerator and the denominator are multiplied by the same number. (MP 8)

4.NF.3 Compare and order fractions with different numerators and denominators. Construct and communicate arguments that justify the order of the fractions. (MP 3)

4.NF.4 Build and use models to add and subtract fractions with like denominators, including mixed numbers. Solve problems involving addition and subtraction of fractions in real world contexts and equations. (MP 2, 4)

4.NF.5 Build and use models to extend understanding of multiplication to fractions. Connect repeated addition to multiplication when multiplying a fraction by a whole number. Multiply a fraction by a whole number using numerical strategies. Solve problems involving multiplying a fraction by a whole number in real world contexts. (MP 2, 4)

4.NF.6 Build and use models to express a fraction with denominator of 10 as an equivalent fraction with denominator of 100, and use this technique to add two fractions with respective denominators of 10 and 100. (MP 4)

4.NF.7 Connect decimal notation to fractions with denominators of 10 or 100. Construct clear and reasonable arguments to justify how the decimal notation and fraction are equivalent. (MP 3)

4.NF.8 Compare two decimal numbers to the hundredths place by reasoning about their size. Justify the comparison. Represent the relationship between two numbers using comparison symbols $<$, $=$, and $>$. (MP 3, 7)

4.MG.1 Add and remove context to solve real-world and mathematical problems involving the area and perimeter of rectangles and rectilinear shapes. Build and use models to make sense of the area and perimeter formulas for rectangles. (MP 2, 4)

4.MG.2 Draw points, lines, line segments, rays, angles (right, acute, and obtuse), and perpendicular and parallel lines. Describe these structures and their relationships within two-dimensional figures. (MP 7)

4.MG.3 Describe angles as geometric figures formed by two rays with a common endpoint. Understand that an angle is measured with reference to a circle. Describe the relationship between an angle's measure and the fraction of the circular arc that it represents. (MP 7)

4.MG.4 Attend to precision and reasonableness when measuring or sketching angles in whole-number degrees using a protractor. (MP 6)

4.MG.5 Understand and demonstrate the additive nature of angle measures. Find and justify unknown angles on a diagram using addition and subtraction. (MP 3)

4.MG.6 Compare and classify two-dimensional figures including quadrilaterals and triangles based on the presence or absence of parallel lines, perpendicular lines, and angles of specified sizes. Justify and evaluate the classification. (MP 3)

<i>No corresponding Utah standard</i>
<i>No corresponding Utah standard</i>
<i>No corresponding Utah standard</i>
4.D.1 Determine a topic question and ask investigative questions that will lead to collecting, analyzing, and interpreting data with up to two variables. Make conjectures about the impact of the sampling process and sample size on results. (MP 1, 8)
4.D.2 Select and use tools strategically to collect and organize data. Build data visualizations. Ask questions to consider a given data set with up to two variables. (MP 1, 5)
4.D.3 Analyze data and data visualizations. Evaluate conjectures about how different sampling processes or data visualizations might influence interpretation of data. (MP 6, 8)
4.D.4 Interpret data and data visualizations to answer investigative questions. Construct and justify arguments about the data. Discuss ways that the sampling process and sample size may affect how people draw conclusions from data. Identify ways to refine investigative questions, data collection, visualization, or analysis. (MP 3)

Strong alignment
Partial alignment
Different grade level
Weak alignment
Utah only—No Massachusetts analog

Different Utah grade level

Massachusetts
4.OA.1 — Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.
4.OA.2 — Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.
4.NBT.5 — [...] using strategies based on place value and the properties of operations [...]. 4.NBT.6 — [...] using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division [...].
4.OA.3 — Solve multi-step word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers [...]. a. Know multiplication facts and related division facts through 12×12 .
4.OA.4 — Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.
4.OA.5 — Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. [...]
4.NBT.1 — Recognize that in a multi-digit whole number, a digit in any place represents 10 times as much as it represents in the place to its right. [...]
4.NBT.2 — Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.
4.NBT.2 — [...] Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.

4.NBT.3 — Use place value understanding to round multi-digit whole numbers to any place.
4.NBT.4 — Fluently add and subtract multi-digit whole numbers using the standard algorithm.
4.NBT.5 — Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
4.NBT.6 — Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
4.NF.3 — Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$. a. [...] joining and separating parts referring to the same whole. b. Decompose a fraction into a sum of fractions with the same denominator in more than one way [...]. c. Add and subtract mixed numbers with like denominators [...].
4.NF.1 — Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models [...]. Use this principle to recognize and generate equivalent fractions, including fractions greater than 1.
4.NF.2 — Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction [...]. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions [...].
4.NF.3c — Add and subtract mixed numbers with like denominators [...]. 4.NF.3d — Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators [...].
4.NF.4 — Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. a. Understand a fraction a/b as a multiple of $1/b$. b. Understand a multiple of a/b as a multiple of $1/b$ [...]. c. Solve word problems involving multiplication of a fraction by a whole number [...].

4.NF.5 — Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. For example, express $\frac{3}{10}$ as $\frac{30}{100}$, and add $\frac{3}{10} + \frac{4}{100} = \frac{34}{100}$.
4.NF.6 — Use decimal notation to represent fractions with denominators 10 or 100. For example, rewrite 0.62 as $\frac{62}{100}$; describe a length as 0.62 meters; locate 0.62 on a number line diagram.
4.NF.7 — Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions [...].
4.MD.3 — Apply the area and perimeter formulas for rectangles in real-world and mathematical problems. [...]
4.G.1 — Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
4.MD.5 — Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement: a. An angle [...] turns through $\frac{1}{360}$ of a circle is called a "one-degree angle" [...]. b. An angle that turns through n one-degree angles is said to have an angle measure of n degrees.
4.MD.6 — Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.
4.MD.7 — Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram [...].
4.G.2 — Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.

4.MD.1 — Know relative sizes of measurement units within one system of units, including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. [...]
4.MD.2 — Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. [...]
4.G.3 — Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.
<i>No corresponding MA standard</i>
4.MD.4 — Make a line plot (dot plot) to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Solve problems involving addition and subtraction of fractions by using information presented in line plots (dot plots).
4.MD.4 — Make a line plot (dot plot) to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Solve problems involving addition and subtraction of fractions by using information presented in line plots (dot plots).
4.MD.4 — [...] Solve problems involving addition and subtraction of fractions by using information presented in line plots (dot plots).

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Alignment	Commentary
Strong	Both interpret a multiplication equation as a comparison and translate verbal multiplicative comparisons into equations.
Strong	Both solve multiplicative-comparison word problems and distinguish multiplicative from additive comparison.
Partial	Massachusetts references the properties of operations within its Grade 4 computation standards but has no standalone standard about naming properties to justify strategies; Utah elevates this to a discrete standard.
Strong	Both solve multi-step four-operation word problems, interpret remainders, use a variable equation, and assess reasonableness.
Strong	Both develop factors and multiples. MA 4.OA.4 also includes prime vs. composite, which Utah addresses a year later (5.OA.1).
Strong	Both generate patterns from a rule and identify features not stated in the rule.
Strong	Both explain that each place is ten times the place to its right, as a multiplicative comparison.
Strong	Both read and represent multi-digit numbers (to 1,000,000) with numerals and expanded form. MA bundles comparison here, which Utah separates into 4.NBT.3.
Strong	Both compare multi-digit numbers by place value using $>$, $=$, and $<$.

Strong	Both round multi-digit whole numbers using place value. Utah adds judging when rounding is appropriate.
Strong	Both fluently add and subtract multi-digit whole numbers via efficient/standard algorithms. MA specifies the standard algorithm; Utah says 'efficient algorithms.'
Strong	Identical multiplication scope: four-digit $\times$ one-digit and two-digit $\times$ two-digit using place-value and area/array models.
Strong	Both divide multi-digit numbers by a one-digit divisor with place-value models. Utah caps the dividend at three digits, while MA extends to four-digit dividends and names remainders.
Strong	Both compose/decompose fractions and mixed numbers as sums of like-denominator fractions and connect improper fractions to mixed numbers.
Strong	Both recognize and generate equivalent fractions and reason about multiplying numerator and denominator by the same number.
Strong	Both compare fractions with unlike numerators and denominators and justify. Utah extends to ordering several fractions.
Strong	Both add and subtract like-denominator fractions and mixed numbers, including word problems.
Strong	Both multiply a fraction by a whole number, connecting it to repeated addition, and solve related word problems.

Strong	Near-identical: rename tenths as hundredths and add tenths and hundredths.
Strong	Both connect decimal notation to fractions with denominators 10 or 100.
Strong	Both compare decimals to hundredths by reasoning about size and justify using comparison symbols.
Strong	Both apply rectangle area and perimeter formulas to solve problems. Utah extends to rectilinear shapes.
Strong	Both draw and identify points, lines, rays, angle types, and parallel/perpendicular lines in figures.
Strong	Both define an angle as two rays from a common endpoint and measure it as a fraction of a circle.
Strong	Both measure and sketch angles in whole-number degrees with a protractor.
Strong	Both treat angle measure as additive and find unknown angles using addition and subtraction.
Strong	Both classify two-dimensional figures by parallel/perpendicular lines and angle properties.

Massachusetts only	Massachusetts requires measurement unit conversion within a system in Grade 4. Utah's Grade 4 standards include no measurement-conversion standard.
Massachusetts only	Massachusetts has a Grade 4 measurement word-problem standard spanning distance, time, volume, mass, and money (with conversions, fractions, and decimals). Utah's measurement word problems appear in Grade 3 (3.MG.3) at a simpler level, with no Grade 4 equivalent.
Massachusetts only	Massachusetts addresses line symmetry in Grade 4. Utah's Grades 3–5 geometry standards do not include a symmetry standard.
Utah only	Massachusetts Grade 4 has no standard for posing investigative questions or reasoning about sampling and sample size; its only Grade 4 data standard is the measurement line plot (4.MD.4).
Weak	Both build a data display, but MA's only Grade 4 data standard is a specific measurement line plot in fractional units, whereas Utah calls for general, multi-variable data visualizations.
Weak	MA's line-plot standard involves reading a single display; Utah's analysis of sampling processes and competing visualizations is far broader and has no real MA Grade 4 counterpart.
Weak	Solving problems from a line plot is the nearest MA expectation, but Utah's argument construction, sampling/sample-size reasoning, and investigation refinement go well beyond it.

	Utah strand
6	#OA standards
7	#NBT standards
8	#NF standards
6	#MG standards
4	#D standards

Total

Total Utah standards	Strong	Partial	Weak	Different MA grade-level
6	5	1	0	0
7	7	0	0	0
8	8	0	0	0
6	6	0	0	0
4	0	0	3	0
31	26	1	3	0

Utah only	Different Utah grade level	MA only
0	0	0
0	0	0
0	0	0
0	0	3
1	0	0
1	0	3

Domain	Topic
Algebraic Thinking	Prime & composite numbers
Algebraic Thinking	Properties of operations
Algebraic Thinking	Generate and describe patterns
Number & Operations in Base 16	Place value and decimals
Number & Operations in Base 17	
Number & Operations in Base 18	
Number & Operations in Base 19	
Number & Operations in Base 20	
Number & Operations in Base 21	Whole number multiplication and division
Number & Operations in Base 22	

Number & Operations in Base 23	Operations with decimals
Number & Operations in Base 24	
Number & Operations in Base 25	
Number & Operations--Fractions	Operations with fractions
Number & Operations--Fractions	
Number & Operations--Fractions	
Number & Operations--Fractions	

Number & Operations--Fractions	
Geometry & Measurement	Three-dimensional figures and volume
Geometry & Measurement	
Geometry & Measurement	Coordinate plane
Geometry & Measurement	Quadrilaterals
	Unit Conversion
Data Science	
Data Science	

Data Science	Data investigations
Data Science	

of Utah Grade 5 Standards:
26

Utah
5.OA.1 Use structures, patterns, and relationships to determine whether a given whole number between 1 and 100 is prime or composite. (MP 7)
5.OA.2 Add context to make sense of numerical expressions involving multiple operations with parentheses, brackets, or braces. Write and/or evaluate numerical expressions. (SMP 2)
5.OA.3 Generate two numerical patterns using two given rules. Describe and represent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns and graph the ordered pairs on a coordinate plane. (MP 7)
5.NBT.1 Describe the structure of place value by explaining that the value of one place represents ten times as much as the place to its right and $\frac{1}{10}$ of the place to its left. Represent those patterns with a statement of multiplicative comparison. (MP 7)
5.NBT.2 Represent powers of 10 with whole-number exponents. Make and test conjectures about a decimal's placement when multiplying by powers of 10. (MP 7, 8)
5.NBT.3 Describe and represent decimals to the thousandths place using models, base-ten numerals, number names, and expanded forms. (MP 7)
5.NBT.4 Compare two decimal numbers and represent the relationship between the two numbers using comparison symbols $<$, $=$, and $>$. (MP 7)
5.NBT.5 Apply knowledge of place value structure to round decimal numbers to the nearest whole, tenth, or hundredth in and out of context. Determine and justify situations where rounding is appropriate. (MP 2, 3)
5.NBT.6 Use efficient numerical strategies based on properties of multiplication and/or place value to multiply a whole number of up to four digits by a one digit whole number and to multiply two two-digit numbers flexibly, accurately, and efficiently in real-world contexts and equations. Determine if products are reasonable. (MP 2, 6)
5.NBT.7 Use efficient numerical strategies based on properties of multiplication and/or place value to divide up to a four digit number by a one digit number. Communicate the meaning of the remainder in real world contexts. (MP 2, 3)

5.NBT.8 Build and use models to find sums and differences of decimals to hundredths in real-world contexts and equations. Use the models to represent and describe the structure of adding tenths with tenths and hundredths with hundredths. (MP 2, 4, 7)

5.NBT.9 Build and use models to find products of decimals to hundredths in real-world contexts and equations. (MP 2, 4)

5.NBT.10 Build and use models to find quotients of decimals limited to a whole number dividend with a decimal divisor of tenths between 0 and 1, or a decimal dividend with a single-digit whole number divisor in real-world contexts and equations. (MP 2, 4)

5.NF.1 Add and subtract fractions with unlike denominators with precision. Solve problems involving addition and subtraction with unlike denominators in real world contexts and equations. Determine if the solution is reasonable. (MP 2, 6)

5.NF.2 Interpret a fraction as division (a/b is the same as $a \div b$). Solve problems involving division in real world contexts using visual models and/or equations. (MP 2, 4)

5.NF.3 Build and use models, including area models, to multiply fractions, whole numbers, and mixed numbers. Connect the properties of multiplication to multiplying fractions. Solve problems involving multiplication of fractions and mixed numbers using real world contexts and equations (fraction by a fraction, fraction by a mixed number, mixed number by mixed number). (MP 2, 4)

5.NF.4 Interpret multiplication as scaling. Construct, justify, and communicate clear and reasonable arguments about the size of the resulting product when multiplying a given number by a fraction greater than one, a fraction less than one, a fraction equal to one. Make and test conjectures about the size of the product based on the size of the factors without computing. (MP 3, 8)

5.NF.5 Build and use models that extend understanding of division to divide unit fractions by whole numbers and whole numbers by unit fractions. Solve problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions using real world contexts and equations. Make conjectures about the relationship between multiplication and division when operating with fractions and evaluate the results. (MP 2, 4, 8)

5.MG.1 Recognize volume as an attribute of solid figures. Build and use models to understand the concept of volume. Demonstrate that unit cubes can be packed into rectangular prisms. Determine volume by counting unit cubes and expressing the volume in cubic units. (MP 4)

5.MG.2 Build and use models to make sense of and apply the formulas for finding the volume of right rectangular prisms. Add or remove context to solve real-world problems involving the volume of a right rectangular prisms with whole-number side lengths. (MP 2, 4)

5.MG.3 Build and use a model of the coordinate plane to represent real-world problems. Understand the numbers in the coordinate pair indicate distance from the origin in the direction of the horizontal and vertical axes. Graph points in the first quadrant of the coordinate plane Interpret coordinate values based on a given context. (MP 2, 4)

5.MG.4 Describe and represent structure, patterns, and relationships when classifying quadrilaterals in a hierarchy based on attributes. (MP 7)

No corresponding Utah standard

5.D.1 Determine a topic question and ask investigative questions that will lead to collecting, analyzing, and interpreting data with up to four variables. Ask questions to identify potential sources of bias in data collection, representation, and interpretation. (MP 1)

5.D.2 Select and use tools strategically, to collect and organize data. Build data visualizations. Ask questions to consider a given data set with up to four variables. Make conjectures about potential sampling approaches and how those approaches impact results. (MP 1, 5, 8)

5.D.3 Analyze data sets with up to four variables and multiple data visualizations Evaluate sampling approaches and data visualizations to identify potential data bias. (MP 6, 8)

5.D.4 Interpret data and data visualizations to answer investigative questions while considering the impact of data bias, choice of data visualizations, and sample size. Construct and justify arguments about the data based on visible features of distribution such as center and range. Identify ways to refine investigative questions, data collection, visualization, or analysis. (MP 3)

Strong alignment

Partial alignment

Different grade level

Weak alignment

Utah only—No Massachusetts analog

Different Utah grade level

Massachusetts only

Massachusetts
<i>No corresponding MA standard</i>
5.OA.1 — Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols [...]. 5.OA.2 — Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. [...]
5.OA.3 — Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. [...]
5.NBT.1 — Recognize that in a multi-digit number, including decimals, a digit in any place represents 10 times as much as it represents in the place to its right and $\frac{1}{10}$ of what it represents in the place to its left.
5.NBT.2 — Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.
5.NBT.3a — Read and write decimals to thousandths using base-ten numerals, number names, and expanded form [...].
5.NBT.3b — Compare two decimals to thousandths based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.
5.NBT.4 — Use place value understanding to round decimals to any place.
5.NBT.5 — Fluently multiply multi-digit whole numbers (include two-digit $\times$ four-digit numbers and three-digit $\times$ three-digit numbers) using the standard algorithm.
5.NBT.6 — Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. [...]

5.NBT.7 — Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction and between multiplication and division; relate the strategy to a written method and explain the reasoning used.

5.NBT.7 — Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations [...].

5.NBT.7 — Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations [...].

5.NF.1 — Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions [...]. 5.NF.2 — Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators [...]. Use benchmark fractions [...] to estimate mentally and assess the reasonableness of answers.

5.NF.3 — Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers [...].

5.NF.4 — Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction. a. Interpret the product $(a/b) \times q$ [...]. b. Find the area of a rectangle with fractional side lengths [...]. 5.NF.6 — Solve real-world problems involving multiplication of fractions and mixed numbers [...].

5.NF.5 — Interpret multiplication as scaling (resizing), by: a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication. b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number [...] and a fraction less than 1 results in a product smaller [...].

5.NF.7 — Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. a. Interpret division of a unit fraction by a non-zero whole number [...]. b. Interpret division of a whole number by a unit fraction [...]. c. Solve real-world problems [...].

5.MD.3 — Recognize volume as an attribute of solid figures and understand concepts of volume measurement (unit cube; n cubic units). 5.MD.4 — Measure volumes by counting unit cubes, using cubic cm, cubic in., cubic ft., and non-standard units.

5.MD.5 — Relate volume to the operations of multiplication and addition and solve real-world and mathematical problems involving volume. a. Find the volume of a right rectangular prism [...] by multiplying the edge lengths [...]. b. Apply the formula $V = l \times w \times h$ and $V = B \times h$ [...]. c. Recognize volume as additive [...].

5.G.1 — Use a pair of perpendicular number lines, called axes, to define a coordinate system [...] a given point located by an ordered pair of numbers, called its coordinates [...]. 5.G.2 — Represent real-world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.

5.G.3 — Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category [...]. 5.G.4 — Classify two-dimensional figures in a hierarchy based on properties.

5.MD.1 — Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real-world problems.

No corresponding MA standard

5.MD.2 — Make a line plot (dot plot) to display a data set of measurements in fractions of a unit. Use operations on fractions for this grade to solve problems involving information presented in line plots (dot plots).

5.MD.2 — Make a line plot (dot plot) to display a data set of measurements in fractions of a unit. Use operations on fractions for this grade to solve problems involving information presented in line plots (dot plots).

5.MD.2 — [...] Use operations on fractions for this grade to solve problems involving information presented in line plots (dot plots).

73.1%
7.7%
0.0%
11.5%
7.7%
100.0%

0
1

Alignment
Utah only
Strong
Strong
Strong
Strong
Strong
Strong
Strong
Partial
Partial

Strong

Strong

Strong

Strong

Strong

Strong

Strong

Strong

Strong

Strong

Strong

Strong

Massachusetts only

Utah only

Weak

Weak
Weak

Commentary
Massachusetts Grade 5 has no prime/composite standard; it teaches prime vs. composite in Grade 4 (4.OA.4). Utah introduces it one grade later, so there is no within-grade Massachusetts match.
Utah combines writing and evaluating grouped numerical expressions (MA 5.OA.1 and 5.OA.2).
Near-identical: generate two patterns, relate corresponding terms, and graph ordered pairs.
Both express the ten-times / one-tenth relationship between adjacent places, including decimals.
Both use whole-number exponents for powers of 10 and reason about decimal-point placement when multiplying/dividing by powers of 10.
Both read and represent decimals to thousandths with numerals, names, and expanded form.
Both compare decimals by place value using $>$, $=$, and $<$.
Both round decimals using place value. Utah specifies whole/tenth/hundredth and adds judging when rounding is appropriate.
Both multiply multi-digit whole numbers, but Utah's Grade 5 scope (four-digit $\times$ one-digit and two-digit $\times$ two-digit) is below MA's, which requires fluent standard-algorithm multiplication of larger products (e.g., two-digit $\times$ four-digit, three-digit $\times$ three-digit).
Both divide multi-digit numbers, but Utah's Grade 5 standard uses one-digit divisors while MA requires two-digit divisors, so Utah's divisor complexity is a grade behind MA's.

The addition/subtraction-of-decimals component matches MA 5.NBT.7. Utah separates the four decimal operations into 5.NBT.8–10, while MA combines them in 5.NBT.7.

The multiplication-of-decimals component matches MA 5.NBT.7.

The division-of-decimals component matches MA 5.NBT.7. Utah narrows the cases (e.g., tenths divisors between 0 and 1, single-digit whole-number divisors).

Both add and subtract unlike-denominator fractions, solve related word problems, and assess reasonableness.

Both interpret a fraction as division and solve division word problems whose answers are fractions or mixed numbers.

Both multiply fractions, whole numbers, and mixed numbers (including area models) and solve multiplication word problems.

Both interpret multiplication as scaling and reason about product size relative to the factors without computing.

Both divide unit fractions by whole numbers and whole numbers by unit fractions and solve related word problems.

Both recognize volume as an attribute and measure it by counting unit cubes in cubic units.

Both apply right-rectangular-prism volume formulas to whole-number side lengths in real-world problems.

Both define the coordinate plane, graph points in the first quadrant, and interpret coordinates in context.

Both classify two-dimensional figures (quadrilaterals) in an attribute-based hierarchy.

Massachusetts requires multi-step measurement unit conversion in Grade 5. Utah's Grade 5 standards include no measurement-conversion standard.

Massachusetts Grade 5 has no standard for posing investigative questions or reasoning about bias; its only Grade 5 data standard is the measurement line plot (5.MD.2).

Both build a data display, but MA's only Grade 5 data standard is a measurement line plot in fractional units, whereas Utah calls for general, multi-variable visualizations and reasoning about sampling.

MA's line-plot standard involves a single display; Utah's analysis of multiple variables, competing visualizations, sampling, and bias is far broader and has no real MA Grade 5 counterpart.

Solving problems from a line plot is the nearest MA expectation, but Utah's reasoning about bias, distribution features (center, range), sample size, and investigation refinement extends well beyond it (these ideas appear in MA in Grade 6).

	Utah strand
3	#OA standards
10	#NBT standards
5	#NF standards
4	#MG standards
4	#D standards
26	Total

Total Utah standards	Strong	Partial	Weak	Different MA grade-level
3	2	0	0	0
10	8	2	0	0
5	5	0	0	0
4	4	0	0	0
4	0	0	3	0
26	19	2	3	0

Utah only	Different Utah grade level	MA only
1	0	0
0	0	0
0	0	0
0	0	1
1	0	0
2	0	1

Domain	Topic
Ratio & Proportion	Ratios & unit rate
Ratio & Proportion	
Ratio & Proportion	
Ratio & Proportion	
Ratio & Proportion	Unit conversions
Algebra	Working with numerical expressions
Algebra	
Algebra	Equivalent expressions
Algebra	Solving equations
Algebra	

Algebra	Modeling with equations
Number Sense	Solve problems by dividing fractions
Number Sense	Solve problems by dividing decimals
Number Sense	Multi-digit whole-number arithmetic
Number Sense	Greatest common factor & least common multiple
Number Sense	Signed numbers
Number Sense	

Number Sense	Absolute value
Geometry	Area & surface area
Geometry	
Geometry	
Geometry	
Data Science	Data investigations
Data Science	
Data Science	

Data Science

of Utah Grade 6 Standards:
26

Utah
6.RP.1 Clearly communicate understanding of ratio relationships by using ratio language. (MP 3)
6.RP.2 Clearly communicate understanding of the concept of a unit rate associated with a ratio and use rate language to represent a unit rate associated with a ratio relationship. (MP 7)
6.RP.3 Build and use models including tables, double number lines, and/or tape diagrams to represent and reason about real-world ratio relationships with whole number quantities. (MP 4)
6.RP.4 Use ratio and rate reasoning as a tool to make sense of and solve problems in context. (MP 5)
6.RP.5 Use ratio reasoning as a tool to convert measurement units when given a unit conversion chart. (MP 5)
6.A.1 Use structure to write and evaluate numerical expressions involving whole numbers exponents. (MP 7)
6.A.2 Describe and represent patterns and structures of expressions to write, read, and evaluate algebraic expressions. (MP 7)
6.A.3 Use properties of operations as tools to generate equivalent expressions. Use properties of operations and understanding of arithmetic to justify why two expressions are equivalent. (MP 3, 5)
6.A.4 Use substitution to reason about whether a given number in a specified set makes an equation or inequality true. Provide justification to support that reasoning. (MP 3)
6.A.5 Describe, represent and solve real-world and mathematical problems using variables within the structure of one-step equations and inequalities. (MP 7)

6.A.6 Create equations to model relationships between two quantities using variables, both in and out of context. (MP 2, 4)

6.NS.1 Extend prior understanding of multiplication and division to divide fractions by fractions. Build and use visual fraction models to make sense of and solve problems dividing fractions by fractions. Add and remove context with problems involving division of fractions by fractions and interpret the quotients. (MP 2, 4)

6.NS.2 Describe and represent structures and patterns to apply an algorithm to divide multi-digit decimals flexibly, accurately, and efficiently. Limit division to a whole number dividend with a decimal divisor or a decimal dividend with a whole number divisor. Determine and justify situations where estimation is appropriate. (MP 3, 6, 7)

6.NS.3 Attend to precision and reasonableness when adding, subtracting, multiplying, and dividing multi-digit whole numbers and decimals flexibly, accurately, and efficiently. (MP 6)

6.NS.4 Find the greatest common factor between two whole numbers 1 to 100 and the least common multiples of two whole numbers 1 to 12 by making use of structures and patterns. Relate greatest common factors to the distributive property. (e.g., re-express $36 + 8$ as $4(9 + 2)$). (MP 7)

6.NS.5 Use positive and negative numbers together to represent quantities in real world contexts, explain the meaning of zero in context. Communicate understanding that positive and negative numbers are used together to describe quantities having opposite directions or values. (MP 2, 3)

6.NS.6 Build and use models to show positive and negative numbers on a number line and coordinate plane. Use models to order positive and negative numbers. (MP 4)

6.NS.7 Build and use models to develop the definition of absolute value. Work with absolute value in and out of context. (MP 2, 4)

6.G.1 Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing and decomposing into rectangles, triangles and/or other shapes. (MP 7)

6.G.2 Build and use nets to represent 3-dimensional figures composed of rectangles and triangles. Use nets as tools to find the surface area of the figure. (MP 4, 5)

6.G.3 Select and use tools appropriately to solve real-world and decontextualized mathematical problems involving surface area and volume of right rectangular prisms with fractional edge lengths. (MP 2, 5)

6.G.4 Construct polygons on the coordinate plane given coordinates for the vertices. Use coordinates to find the length of a side joining points with the same x coordinate or the same y coordinate. Apply these techniques to solve problems with and without real-world context. (MP 2)

6.D.1 Formulate statistical investigative questions that anticipate variability in data and how the data may impact the investigation question. (MP 1)

6.D.2 Select and use tools appropriately and strategically to generate, collect, and organize data. Ask questions about how the data were collected and whether the data are useful to answer the statistical question of interest. (MP 1, 5)

6.D.3 Create precise and reasonable visual representations, including histograms (with or without technology), dot plots, and box plots. Justify which graph or plot best represents the data. Analyze and interpret visual representations and numerical summaries for measures of center (mean and/or median) and measures of variability (mean absolute deviation and/or interquartile range). (MP 3, 6)

6.D.4 Construct, justify, and communicate answers to investigative questions about distributions. Consider the interpretation of the following features of distributions: center (mean and/or median), variability (mean absolute deviation and/or inter quartile range), and overall shape (symmetric or non-symmetric). Describe any striking deviations (outliers). Identify ways to refine investigative questions, data collection, visualization, or analysis. (MP 3)

Strong alignment
Partial alignment
Different grade level
Weak alignment
Utah only—No Massachusetts analog

Different Utah grade level
Massachusetts only

Massachusetts
6.RP.1 — Understand the concept of a ratio including the distinctions between part:part and part:whole and the value of a ratio [...]. Use ratio language to describe a ratio relationship between two quantities. [...]
6.RP.2 — Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship, including the use of units. [...]
6.RP.3 — Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. a. Make tables of equivalent ratios [...] and plot the pairs of values on the coordinate plane. [...]
6.RP.3 — Use ratio and rate reasoning to solve real-world and mathematical problems [...]. b. Solve unit rate problems, including those involving unit pricing and constant speed. [...] c. Find a percent of a quantity as a rate per 100 [...].
6.RP.3d — Use ratio reasoning to convert measurement units within and between measurement systems; manipulate and transform units appropriately when multiplying or dividing quantities. [...]
6.EE.1 — Write and evaluate numerical expressions involving whole-number exponents.
6.EE.2 — Write, read, and evaluate expressions in which letters stand for numbers. a. Write expressions that record operations [...]. b. Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, and coefficient) [...]. c. Evaluate expressions at specific values of their variables [...].
6.EE.3 — Apply the properties of operations to generate equivalent expressions. 6.EE.4 — Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them).
6.EE.5 — Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.
6.EE.7 — Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p , q , and x are all nonnegative rational numbers. 6.EE.8 — Write an inequality of the form $x > c$ or $x < c$ to represent a constraint [...]; represent solutions of such inequalities on number line diagrams.

6.EE.9 — Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship [...] using graphs and tables, and relate these to the equation.

6.NS.1 — Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. [...]

6.NS.3 — Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.

6.NS.2 — Fluently divide multi-digit numbers using the standard algorithm. 6.NS.3 — Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.

6.NS.4 — Use prime factorization to find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two relatively prime numbers. For example, express $36 + 8$ as $4(9 + 2)$.

6.NS.5 — Understand that positive and negative numbers are used together to describe quantities having opposite directions or values [...]. Use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of zero in each situation.

6.NS.6 — Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points with negative number coordinates. a. Recognize opposite signs [...]. b. Understand signs in ordered pairs as quadrant locations [...]. c. Find and position integers and other rational numbers on a number line and on a coordinate plane.

6.NS.7 — Understand ordering and absolute value of rational numbers. [...] c. Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. d. Distinguish comparisons of absolute value from statements about order.

6.G.1 — Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.

6.G.4 — Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface areas of these figures. Apply these techniques in the context of solving real-world and mathematical problems.

6.G.2 — Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths [...]. Apply the formulas $V = lwh$ and $V = Bh$ to find volumes of right rectangular prisms with fractional edge lengths [...].

6.G.3 — Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.

6.SP.1 — Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. [...]

6.SP.5 — Summarize numerical data sets in relation to their context, such as by: a. Reporting the number of observations. b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement. [...]

6.SP.4 — Display numerical data in plots on a number line, including dot plots, histograms, and box plots. a. Read and interpret circle graphs. 6.SP.5c — Giving quantitative measures of center (median, and/or mean) and variability (range and/or interquartile range) [...].

6.SP.2 — Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape. 6.SP.5d — Relating the choice of measures of center and variability to the shape of the data distribution [...].

96.2%
3.8%
0.0%
0.0%
0.0%
100.0%

0
0

Alignment
Strong
Strong
Strong
Strong
Strong
Strong
Strong
Strong
Strong
Strong

Strong

Strong

Strong

Strong

Strong

Strong

Strong

Strong

Strong

Strong

Strong

Strong

Strong

Partial

Strong

Strong

Commentary
Both describe ratio relationships using ratio language.
Both develop the concept of a unit rate associated with a ratio and use rate language.
Both use tables, double number lines, and tape diagrams to represent and reason about ratio relationships.
Both apply ratio and rate reasoning to solve contextual problems. Note that MA 6.RP.3 also includes finding a percent of a quantity, whereas Utah introduces percent in Grade 7 (7.RP.2).
Both use ratio reasoning to convert measurement units. MA additionally specifies converting between (not only within) measurement systems.
Both write and evaluate numerical expressions with whole-number exponents.
Both write, read, and evaluate algebraic expressions, attending to their structure.
Both generate equivalent expressions using properties of operations and reason about why two expressions are equivalent.
Both use substitution to test whether a value from a specified set makes an equation or inequality true.
Utah combines one-step equations (MA 6.EE.7) and one-variable inequalities (MA 6.EE.8) into a single standard.

Both write equations to model a relationship between two quantities. MA 6.EE.9 also asks students to analyze the dependent/independent relationship with graphs and tables.

Both divide fractions by fractions using visual models and interpret the quotients in context.

Both fluently divide multi-digit decimals via a standard algorithm. MA 6.NS.3 covers all four decimal operations, which Utah distributes across 6.NS.2 and 6.NS.3.

Both establish fluency with multi-digit whole-number and decimal operations.

Near-identical, including GCF (to 100), LCM (to 12), and the distributive-property example $36 + 8 = 4(9 + 2)$.

Both use signed numbers to represent opposite directions/values and explain the meaning of zero in context.

Both place and order signed numbers on the number line and coordinate plane.

Both develop absolute value as distance from zero and apply it in context. (MA 6.NS.7 also folds in ordering, which Utah places in 6.NS.6.)

Near-identical: find areas of triangles, special quadrilaterals, and polygons by composing/decomposing.

Both use nets of rectangles and triangles to find surface area of 3-D figures.

Both find the volume of right rectangular prisms with fractional edge lengths. Utah also names surface area, which MA handles via nets in 6.G.4.

Both draw polygons from coordinates and find side lengths between points sharing an x- or y-coordinate. (This also covers part of MA 6.NS.8.)

Both center on statistical questions that anticipate variability in data. Utah frames this as formulating the question.

Both attend to how data were collected/measured, but Utah's emphasis on generating and collecting data and evaluating its usefulness has no dedicated MA Grade 6 standard; MA addresses sampling quality in Grade 7.

Both create dot plots, histograms, and box plots and analyze center and variability (MAD/IQR).

Both interpret distributions by center, variability, shape, and outliers. Utah adds refining the investigative question, a recurring feature of its data-science strand.

	Utah strand	Total Utah standards
5	#RP standards	5
6	#A standards	6
7	#NS standards	7
4	#G standards	4
4	#D standards	4
26	Total	26

Strong	Partial	Weak	Different MA grade-level	Utah only
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
4	0	0	0	0
3	1	0	0	0
25	1	0	0	0

Different Utah grade level	MA only
0	0
0	0
0	0
0	0
0	0
0	0
0	0

Domain	Topic
Ratio & Proportion	Percents & Financial Applications
Ratio & Proportion	
Ratio & Proportion	
Ratio & Proportion	Ratios, Rates, & Proportional Relationships
Ratio & Proportion	Ratios, Rates, & Proportional Relationships
Ratio & Proportion	Ratios, Rates, & Proportional Relationships
Ratio & Proportion	Ratios, Rates, & Proportional Relationships
Algebra	Ratios, Rates, & Proportional Relationships
Algebra	Expressions, Equations, & Inequalities
Algebra	

Algebra	
Number Sense	The Number System & Rational Numbers
Number Sense	The Number System & Rational Numbers
Number Sense	The Number System & Rational Numbers
Number Sense	The Number System & Rational Numbers
Geometry	Scale Drawings, Constructions, & Similarity
Geometry	
Geometry	
Geometry	
Geometry	Circles, Area, Surface Area, Volume & Angles

Geometry	
Geometry	
Data Science	Statistics & Sampling
Data Science	
Data Science	
Data Science	
Data Science	Probability
Data Science	
Data Science	

Data Science	
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of Utah Grade 7 Standards:
28

Utah
7.RP.2 Understand percent of a quantity as a rate per 100. Describe and represent structures and patterns that connect percent to ratio. (MP 7)
7.RP.3 Build and use models including tables, graphs, double number lines, or tape diagrams to find a percent of a quantity as a rate per 100. Solve problems involving finding the whole, the part, or the percent. (MP 4)
7.RP.6 Use proportional relationships as a tool to solve multi-step and percent problems such as simple interest, tax, markups and markdowns, gratuities and commissions, fees, and percent increase and decrease. (MP 5)
7.RP.1 Calculate unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities. Apply unit rate as a tool to make and evaluate conjectures about proportional relationships. (MP 8)
7.RP.4 Recognize structures and patterns when analyzing real world contexts to determine whether two quantities have a proportional relationship. Use tables, graphs, equations, diagrams and verbal descriptions to justify whether a relationship is proportional. (MP 3, 7)
7.RP.5 Build and use models (tables, graphs, equations, diagrams and verbal descriptions) to represent proportional relationships and identify and interpret the constant of proportionality. (MP 4)
7.RP.7 Interpret the meaning of a point (x,y) on the graph of a proportional relationship in a given context. Connect and interpret the relationship between the points $(0, 0)$ and $(1, r)$ where r is the unit rate. (MP 4, 7)
7.A.4 Build and use models including tables, graphs, and equations to represent and understand the relationship between independent and dependent variables. (MP 4)
7.A.1 Apply properties of operations as tools to add, subtract, factor and expand linear expressions with rational coefficients in different forms. (MP 5)
7.A.2 Use algebraic tools to solve equations and inequalities representing real-world problems of the form $px+q=r$ and $p(x+q)=r$ using positive and negative rational numbers. Attend to the reasonableness of the solutions. (MP 5, 6)

7.A.3 Given a context, construct equations and inequalities to model real-world problems of the form $px+q=r$ and $p(x+q)=r$ using positive and negative rational numbers. (MP 4)

7.NS.1 Describe and represent structures, patterns and relationships to define rational numbers and make connections between fraction, decimal and percent representations. of a rational number. Flexibly use the various representations of rational numbers while attending to precision. (MP 6, 7)

7.NS.2 Build and use models including a horizontal or vertical number line diagram to extend previous understanding of addition and subtraction to add and subtract rational numbers in and out of context including signed decimals and fractions. (MP 2, 4)

7.NS.3 Extend previous understanding of multiplication and division to multiply and divide rational numbers in and out of context. (MP 2)

7.NS.4 Flexibly, accurately, and efficiently add, subtract, multiply and divide rational numbers including signed decimals and fractions in and out of context. Attend to precision and reasonableness of solutions. (MP 5, 6)

7.G.1 Select and use tools appropriately and strategically (e.g., a compass, straightedge, dynamic geometry software) to draw and accurately describe scaled geometrical figures. Utilize the underlying structure of scale drawings to understand scale factor and solve real world and mathematical problems. (MP 5, 7)

7.G.2 Select and use tools appropriately and strategically to create triangles from given conditions to determine whether a unique triangle, more than one triangle, or no triangle can be formed. (MP 5)

7.G.3 Flexibly, accurately and efficiently solve real-world and mathematical problems involving perimeter and area of circles, triangles, quadrilaterals and polygons as well as surface area of right prisms. (MP 2, 6)

7.G.4 Describe and use the relationship between the area of a base of a right-prism and its volume to solve real world and mathematical problems. (MP 7)

7.G.5 Describe and represent structures, patterns, and relationships related to supplementary, complementary, vertical, and adjacent angles to solve for unknown angle measures in a figure. (MP 7)

No corresponding Utah standard

7.D.1 Formulate statistical investigative questions that anticipate variability in data collected from a random sample of a population. (MP 1)

7.D.2 Generate, collect, and organize randomly sampled data that is representative of the population using tools appropriately. Explain why random sampling is more likely to produce representative samples and support valid inferences using clear and reasonable arguments. (MP 3, 5)

7.D.3 Create precise and reasonable visual representations, including histograms (with technology), dot plots, and box plots. Analyze and interpret visual representations and numerical summaries for measures of center (mean and/or median) and measures of variability (mean absolute deviation and/or inter-quartile range). (MP 6)

7.D.4 Construct, justify, and communicate answers to investigative questions about a population and comparisons about two different populations. Compare features such as center (mean and median), variability (mean absolute deviation and inter-quartile range) and overall shape (symmetric or nonsymmetric). (MP 3)

7.D.5 Communicate clear understanding that the probability of a chance event is the likelihood of an event occurring and is expressed as a number between 0 and 1. (MP 3)

7.D.6 Estimate the probability of a chance event by observing its long-run relative frequency. Given the probability, predict and evaluate the reasonableness of approximate relative frequencies. (MP 8)

7.D.7 Build and use probability models such as organized lists, tables, tree diagrams, and simulations to find or estimate probabilities of simple and compound events. (MP 4)

7.D.8 Build a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies. If the agreement is not good, explain possible sources for discrepancy. (e.g., find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down...) (MP 4)

	Strong alignment
	Partial alignment
	Different grade level
	Weak alignment
Utah only--No Massachusetts analog	

Different Utah grade level
Massachusetts only

Massachusetts
7.RP.3 — Use proportional relationships to solve multi-step ratio, rate, and percent problems. [...]
7.RP.3 — Use proportional relationships to solve multi-step ratio, rate, and percent problems. For example: simple interest, tax, price increases and discounts, gratuities and commissions, fees, percent increase and decrease, percent error.
7.RP.3 — Use proportional relationships to solve multi-step ratio, rate, and percent problems. For example: simple interest, tax, price increases and discounts, gratuities and commissions, fees, percent increase and decrease, percent error.
7.RP.1 — Compute unit rates associated with ratios of fractions, including ratios of lengths, areas, and other quantities measured in like or different units. [...]
7.RP.2a — Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table, or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.
7.RP.2b — Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships. 7.RP.2c — Represent proportional relationships by equations. [...]
7.RP.2d — Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, r) where r is the unit rate.
7.RP.2 — Recognize and represent proportional relationships between quantities. b. Identify the constant of proportionality in tables, graphs, equations, diagrams [...]. c. Represent proportional relationships by equations. [...]
7.EE.1 — Apply properties of operations to add, subtract, factor, and expand linear expressions with rational coefficients.
7.EE.4a — Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$ [...]. Solve equations of these forms fluently. 7.EE.4b — Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$ [...]. Graph the solution set [...].

7.EE.4 — Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. [...] (MA 7.EE.4c also extends pattern analysis to arithmetic and geometric sequences.)

7.NS.2d — Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.

7.NS.1 — Apply and extend previous understandings of addition and subtraction to add and subtract integers and other rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. [a–d]

7.NS.2 — Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide integers and other rational numbers. [a–c]

7.NS.3 — Solve real-world and mathematical problems involving the four operations with integers and other rational numbers. 7.EE.3 — Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form [...]; assess the reasonableness of answers [...].

7.G.1 — Solve problems involving scale drawings of geometric figures, such as computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.

7.G.2 — Draw (freehand, with ruler and protractor, and with technology) two-dimensional geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.

7.G.4 — Circles and measurement [...] d. Know the formulas for the area and circumference of a circle and use them to solve problems. 7.G.6 — Solve real-world and mathematical problems involving area, volume, and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

7.G.6 — Solve real-world and mathematical problems involving area, volume, and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

7.G.5 — Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write simple equations and use them to solve for an unknown angle in a figure.

7.G.3 — Describe the shape of the two-dimensional face of the figure that results from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.

7.SP.1 — Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative [...]. Understand that random sampling tends to produce representative samples and support valid inferences.

7.SP.1 — [...] random sampling tends to produce representative samples and support valid inferences. 7.SP.2 — Use data from a random sample to draw inferences about a population [...]. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions.

7.SP.4 — Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. [...]

7.SP.3 — Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers [...]. 7.SP.4 — Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations.

7.SP.5 — Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. [...]

7.SP.6 — Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. [...]

7.SP.8 — Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation. a–c [...].

7.SP.7 — Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy. a. Develop a uniform probability model [...]. b. Develop a probability model (which may not be uniform) by observing frequencies [...spinning penny / tossed paper cup example].

85.7%
14.3%
0.0%
0.0%
0.0%
100.0%

0
1

Alignment
Partial
Strong
Strong
Strong
Strong
Strong
Strong
Partial
Strong
Strong

Strong

Partial

Strong

Strong

Strong

Strong

Strong

Strong

Strong

Strong
Massachusetts only
Strong
Strong
Partial
Strong
Strong
Strong
Strong

Strong

Commentary
MA defines percent as a rate per 100 in Grade 6 (6.RP.3c) and at Grade 7 focuses on solving percent problems; Utah introduces the percent-as-rate-per-100 concept here in Grade 7.
Both solve percent problems (finding the part, whole, or percent) using proportional models.
Near-identical applied-percent list (interest, tax, markups/discounts, gratuities, commissions, fees, percent increase/decrease).
Both compute unit rates associated with ratios of fractions, including lengths and areas.
Both determine whether two quantities are proportional using tables, graphs, and other representations.
Both represent proportional relationships and identify/interpret the constant of proportionality.
Both interpret points on a proportional graph, with special attention to (0, 0) and (1, r).
Utah's general independent/dependent-variable modeling is broader than MA's Grade 7 treatment, which is embedded in proportional relationships (7.RP.2); MA formally introduces dependent/independent variables in Grade 6 (6.EE.9).
Both add, subtract, factor, and expand linear expressions with rational coefficients. (MA 7.EE.2 further asks students to see how rewriting expressions sheds light on a problem.)
Both solve equations and inequalities of the form $px + q = r$ and $p(x + q) = r$ with rational numbers.

Both construct equations and inequalities to model contextual problems. MA 7.EE.4c additionally includes arithmetic and geometric sequences, which Utah does not address at this grade.

Both connect representations of rational numbers, but MA's Grade 7 standard targets fraction-to-decimal conversion (terminating/repeating); the broader fraction-decimal-percent framing is distributed across MA 7.NS.2d and the percent standards 7.RP.2–3.

Both add and subtract rational numbers (including signed decimals and fractions) using number line models.

Both multiply and divide rational numbers, extending prior understanding of operations.

Both establish fluency with the four operations on rational numbers and assess reasonableness.

Both use scale drawings and scale factor to solve problems.

Both construct triangles from given conditions and determine whether a unique triangle, more than one, or none results.

Utah combines area/circumference of circles (MA 7.G.4) with area of polygons and surface area of prisms (MA 7.G.6).

Both find the volume of right prisms (base area times height) in problem contexts.

Both use supplementary, complementary, vertical, and adjacent angle relationships to solve for unknown angles.
Massachusetts has a Grade 7 standard on cross-sections of three-dimensional figures (plane sections). Utah's Grade 7 geometry standards do not address slicing solids.
Both ground statistical investigation in random sampling from a population. Utah frames it as formulating the investigative question.
Both collect representative random samples and reason about why random sampling supports valid inferences.
The center/variability analysis matches MA 7.SP.4, but Utah's creation of histograms, dot plots, and box plots is content MA establishes in Grade 6 (6.SP.4) rather than Grade 7.
Both draw comparative inferences about two populations using center, variability, and shape.
Both express probability as a number between 0 and 1 indicating likelihood.
Both estimate probability from long-run relative frequency and predict relative frequency from probability.
Both use organized lists, tables, tree diagrams, and simulation to find probabilities of simple and compound events.

Both build a probability model, compare to observed frequencies, and explain discrepancies (with the same spinning-penny / paper-cup example).

	Utah strand
7	#RP standards
4	#A standards
4	#NS standards
5	#G standards
8	#D standards

28	Total
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Total Utah standards	Strong	Partial	Weak	Different MA grade-level
7	6	1	0	0
4	3	1	0	0
4	3	1	0	0
5	5	0	0	0
8	7	1	0	0
28	24	4	0	0

Utah only	Different Utah grade level	MA only
0	0	0
0	0	0
0	0	0
0	0	1
0	0	0
0	0	1

Domain	Topic
Algebra	Exponential Expressions
Algebra	
Algebra	
Algebra	
Algebra	
Algebra	Solving Equations and Inequalities
Algebra	Solving Systems of Equations
Algebra	
Algebra	

Functions	Linear Functions and Slope
Functions	
Functions	Function Basics
Functions	Modeling with Functions
Functions	Features of Functions
Number Systems	Irrational Numbers
Number Systems	
Number Systems	
Number Systems	
Geometry	

Geometry	Rigid Transformations
Geometry	
Geometry	Triangles & Angle Relationships
Geometry	
Geometry	Measurement
Data Science	
Data Science	
Data Science	
Data Science	

Data Science	Bivariate Data
Data Science	
Data Science	

of Utah Grade 8 Standards:
31

Utah
8.A.1 Use structure and patterns to develop and apply the properties of integer exponents to generate equivalent expressions. (MP 7)
8.A.2 Use structure and patterns of operations to simplify and evaluate algebraic expressions, including those involving rational coefficients, exponents, and polynomial terms. (MP 7)
8.A.3 Use algebraic tools strategically to represent solutions to equations in the form $x^2 = p$ and $x^3 = p$. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. (MP 5)
8.A.4 Represent the structure and patterns of numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and express how many times as much one is than the other. (MP 7)
8.A.5 Apply structures, properties and patterns of exponents to perform all four operations with scientific notation. Interpret scientific notation in terms of a context. (MP 2, 7)
8.A.8 Use structures, patterns and properties of equivalence to solve symbolic and real-world single-variable equations and inequalities with rational number coefficients and justify algebraically. Solve absolute value equations in the form $ px +q=c$ or $ px+q =c$. (MP 7)
8.A.9 Build and use graphic models to analyze and solve systems of two linear equations in two variables and interpret their solutions. Identify systems that have zero, one, and infinite solutions with or without context. (MP 2, 4)
8.A.6 Represent patterns by graphing proportional relationships and interpret the unit rate as the slope of the graph. Use the structure of similar triangles to explain why the slope is the same between any two distinct points on a non-vertical line in the coordinate plane. (MP 7)
8.A.7 Represent and compare linear relationships using graphs, tables, and equations with or without context. Interpret slope and intercepts in context. (MP 2)

8.F.2 Given a representation (verbal description, table, two coordinate pairs, or an equation of $y=mx+b$), determine and interpret the rate of change and the initial value in and out of context. (MP 2, 4)

8.F.5 Use multiple representations (tables, graphs, equations, diagrams and verbal descriptions) to compare the properties of linear and nonlinear functions with and without a context. Justify whether a function is linear or non-linear. (MP 3)

8.F.1 Construct and communicate clear arguments as to whether a relation is a function. (MP 3)

8.F.3 Construct a function to model a linear relationship between two quantities when given a verbal description, a table, and a graph. (MP 4)

8.F.4 Given a graph of two quantities (linear and non-linear), describe and represent features of the relationship, including intervals where the function is increasing or decreasing, the location of its maximum and minimum values. Build graphic models that satisfy given qualitative features. (MP 4, 7)

8.NS.1 Describe and represent structures and patterns comparing the set of irrational numbers to the set of rational numbers, in order to determine properties of irrational numbers. (MP 7)

8.NS.2 Find rational approximations of irrational numbers, attending to precision and reasonableness. Use a number line diagram as a model to compare values of irrational numbers. (MP 4, 6)

8.NS.3 Estimate the value of expressions containing irrational numbers, with and without a context. (MP 2)

8.NS.4 Justify why sums and products of rational numbers are rational, that the sum of a rational number and an irrational number is irrational, and that the product of a nonzero rational number and an irrational number is irrational. Build and use models to connect to physical situations. (MP 3, 4)

8.G.1 Use rigid transformations to establish a definition of congruent figures. Justify that two shapes are congruent through the use of rigid transformations. Make and evaluate conjectures about attributes of, rotations, reflections, and translations with and without coordinates. (MP 3, 8)

8.G.2 Use transformations (dilation, translation, reflection and rotation) to establish a definition of similar figures. Justify that two shapes are similar through the use of transformations. Make and examine conjectures about attributes of dilations, with and without coordinates. (MP 3, 8)

8.G.3 Ask questions to determine the difference between congruence and similarity in terms of transformations. Clearly communicate the distinction between congruent and similar figures. (MP 1, 3)

8.G.4 Create and communicate informal arguments that establish angle relationships for parallel lines cut by a transversal and angle relationships for triangles, including the angle sum and exterior angle. (MP 3)

8.G.5 Use the Pythagorean theorem when solving problems with right triangles and finding distance between two coordinate points. Use geometric structures and numerical patterns to understand and explain proofs of the Pythagorean Theorem. (MP 7)

8.G.6 Solve real-world and mathematical problems with or without a context involving right triangles, distance, and volume of cones, cylinders, and spheres. (MP 2)

8.D.1 Ask questions about bivariate data sets (quantitative and categorical) to investigate patterns of associations between two quantities. (MP 1)

8.D.2 Select and use tools appropriately and strategically to identify existing data sets or generate, collect, and organize data to investigate associations between two quantities. (MP 5)

8.D.3 Explore, describe and compare variability in bivariate data for quantitative variables by creating scatter plots. For scatter plots that suggest a linear association, represent the relationship with a linear equation, and informally assess the line of fit by judging the closeness of the data points to the line. (MP 7)

8.D.4 Describe, represent and explain patterns of association such as clustering, positive or negative association, linear or nonlinear association and effects of outliers. (MP 7)

8.D.5 Answer investigative questions by interpreting quantitative bivariate data. Construct, justify, and communicate clear and reasonable arguments regarding the data. Use the equation of a linear model to solve problems in the context of bivariate measurement data, including interpreting the slope and intercept. Identify ways to refine the question, data collection, visualization, or analysis. (MP 3, 4)

8.D.6 Explore, describe and compare variability in bivariate data for categorical variables by constructing two-way tables. Calculate and interpret relative frequencies for rows or columns in a two-way table. Attend to precision and reasonableness. (MP 6)

8.D.7 Construct, analyze, and communicate clear and reasonable arguments to answer investigative questions about the association between categorical bivariate data. Use the relative frequencies calculated for rows or columns as evidence to justify and describe possible associations between the two variables. (MP 3)

Strong alignment

Partial alignment

Different grade level

Weak alignment

Utah only--No Massachusetts analog

Different Utah grade level

Massachusetts only

Massachusetts
8.EE.1 — Know and apply the properties of integer exponents to generate equivalent numerical expressions. [...]
8.EE.7b — Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.
8.EE.2 — Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{2}$ is irrational.
8.EE.3 — Use numbers expressed in the form of a single digit multiplied by an integer power of 10 to estimate very large or very small quantities, and express how many times as much one is than the other. [...]
8.EE.4 — Perform operations with numbers expressed in scientific notation [...]. Use scientific notation and choose units of appropriate size [...]. Interpret scientific notation that has been generated by technology.
8.EE.7 — Solve linear equations in one variable. a. Give examples of linear equations with one solution, infinitely many solutions, or no solutions [...]. b. Solve linear equations with rational number coefficients [...].
8.EE.8 — Analyze and solve pairs of simultaneous linear equations. a. Understand that solutions correspond to points of intersection [...]. b. Solve systems algebraically (substitution and elimination) and estimate solutions by graphing [...]. c. Solve real-world and mathematical problems leading to two linear equations [...].
8.EE.5 — Graph proportional relationships, interpreting the unit rate as the slope of the graph. [...] 8.EE.6 — Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line [...]. Derive the equation $y = mx$ [...] and $y = mx + b$ [...].
8.EE.5 — [...] Compare two different proportional relationships represented in different ways. 8.EE.6 — [...] Derive the equation $y = mx$ for a line through the origin and the equation $y = mx + b$ for a line intercepting the vertical axis at b .

8.F.4 — Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values [...]. Interpret the rate of change and initial value [...].

8.F.2 — Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). 8.F.3 — Interpret the equation $y = mx + b$ as defining a linear function whose graph is a straight line; give examples of functions that are not linear.

8.F.1 — Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.

8.F.4 — Construct a function to model a linear relationship between two quantities. [...]

8.F.5 — Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.

8.NS.1 — Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion. For rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.

8.NS.2 — Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions. [...]

8.NS.2 — [...] estimate the value of expressions (e.g., $\sqrt{2}$). [...]

No corresponding MA standard

8.G.1 — Verify experimentally the properties of rotations, reflections, and translations (lines/segments, angles, parallel lines). 8.G.2 — Understand that a two-dimensional figure is congruent to another if the second can be obtained by a sequence of rotations, reflections, and translations; describe a sequence that exhibits the congruence.

8.G.3 — Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates. 8.G.4 — Understand that a two-dimensional figure is similar to another if the second can be obtained by a sequence of rotations, reflections, translations, and dilations; describe a sequence that exhibits the similarity.
8.G.2 — [congruence via rotations, reflections, translations] 8.G.4 — [similarity via rotations, reflections, translations, and dilations]
8.G.5 — Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. [...]
8.G.6 — a. Understand the relationship among the sides of a right triangle. b. Analyze and justify the Pythagorean Theorem and its converse using pictures, diagrams, narratives, or models. 8.G.8 — Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.
8.G.7 — Apply the Pythagorean Theorem to determine unknown side lengths in right triangles [...] in two and three dimensions. 8.G.9 — Know the formulas for the volumes of cones, cylinders, and spheres, and use them to solve real-world and mathematical problems.
8.SP.1 — Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. [...] 8.SP.4 — Understand that patterns of association can also be seen in bivariate categorical data [...] two-way table [...].
8.SP.1 — Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. [...]
8.SP.1 — Construct and interpret scatter plots for bivariate measurement data [...]. 8.SP.2 — Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line and informally assess the model fit by judging the closeness of the data points to the line.
8.SP.1 — [...] Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.

8.SP.3 — Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. [...]
8.SP.4 — Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table [...]. Use relative frequencies calculated for rows or columns to describe possible association [...].
8.SP.4 — [...] Use relative frequencies calculated for rows or columns to describe possible association between the two variables. [...]

83.9%
12.9%
0.0%
0.0%
3.2%
100.0%

0
0

Alignment	Commentary
Strong	Both develop and apply the properties of integer exponents to generate equivalent expressions.
Partial	Massachusetts handles expression manipulation (distributing, collecting like terms) within equation solving and does not address polynomial terms at Grade 8; Utah elevates expression simplification, including polynomial terms, to its own standard.
Strong	Both represent solutions to $x^2 = p$ and $x^3 = p$ and evaluate square/cube roots of small perfect squares/cubes.
Strong	Both use single-digit-times-power-of-10 forms to estimate magnitudes and compare them multiplicatively.
Strong	Both perform operations with and interpret scientific notation.
Partial	Both solve one-variable linear equations with rational coefficients, but Utah also requires solving one-variable inequalities and absolute value equations ($ px + q = c$), neither of which is in MA's Grade 8 (absolute value equations appear in MA high school).
Strong	Both solve systems of two linear equations and classify solutions as zero, one, or infinitely many. MA additionally specifies algebraic methods (substitution and elimination), while Utah emphasizes graphic models.
Strong	Both graph proportional relationships as slope and use similar triangles to justify constant slope.
Strong	Both represent and compare linear relationships across graphs, tables, and equations and interpret slope and intercept.

Strong	Both determine and interpret the rate of change and initial value of a linear function from varied representations.
Strong	Both compare functions across representations and distinguish linear from nonlinear functions.
Strong	Both establish what makes a relation a function (each input assigned exactly one output).
Strong	Both construct a function to model a linear relationship from a description, table, or graph.
Strong	Both analyze a graph qualitatively (increasing/decreasing, extrema) and sketch graphs with given qualitative features.
Strong	Both distinguish irrational from rational numbers and characterize their properties.
Strong	Both use rational approximations to compare and locate irrational numbers on a number line.
Strong	Both estimate the value of expressions that contain irrational numbers.
Utah only	Massachusetts addresses the closure properties of rational and irrational numbers (rational + irrational is irrational, etc.) in high school (Number & Quantity), not in Grade 8. There is no within-grade Massachusetts match.
Strong	Both define congruence through sequences of rigid transformations and justify congruence.

Strong	Both define similarity through sequences of transformations (including dilations) and justify similarity.
Partial	Massachusetts establishes congruence (8.G.2) and similarity (8.G.4) in separate standards but has no dedicated standard asking students to articulate the distinction between them; Utah makes this comparison its own standard.
Strong	Both build informal arguments about triangle angle sum/exterior angle and angles from parallel lines cut by a transversal.
Strong	Both apply the Pythagorean Theorem (including coordinate distance) and explain/justify why it holds.
Strong	Both solve problems involving right triangles and the volumes of cones, cylinders, and spheres.
Strong	Both investigate association in bivariate data, spanning quantitative (scatter plots) and categorical (two-way tables) data.
Partial	Massachusetts moves directly to constructing scatter plots and has no dedicated data-collection standard at Grade 8; Utah adds identifying, generating, collecting, and organizing the data.
Strong	Both create scatter plots, fit a line to linear associations, and informally assess the fit.
Strong	Both describe patterns of association: clustering, positive/negative, linear/nonlinear, and outliers.

Strong	Both use a linear model to solve problems with bivariate data and interpret slope and intercept. Utah adds refining the investigation.
Strong	Both construct two-way tables and calculate/interpret relative frequencies for rows or columns.
Strong	Both use relative frequencies from a two-way table as evidence for associations between categorical variables.

	Utah strand
9	#A standards
5	#F standards
4	#NS standards
6	#G standards
7	#D standards
31	Total

Total Utah standards			Weak	Different MA grade- level	
	Strong	Partial			
9	7	2	0		0
5	5	0	0		0
4	3	0	0		0
6	5	1	0		0
7	6	1	0		0
31	26	4	0		0

Utah only	Different Utah grade level	MA only
0	0	0
0	0	0
1	0	0
0	0	0
0	0	0
1	0	0

Grade	Strand	Total Utah standards	Strong	Partial
K	#CC standards	8	6	0
K	#OA standards	4	4	0
K	#NBT standards	1	1	0
K	#MG standards	5	4	0
K	#D standards	4	0	3
1	#OA standards	8	8	0
1	#NBT standards	7	5	2
1	#MG standards	7	5	1
1	#D standards	4	0	3
2	#NBT standards	7	7	0
2	#OA standards	4	4	0
2	#MG standards	10	10	0
2	#D standards	4	1	2
3	#OA standards	7	7	0
3	#NBT standards	4	3	0
3	#NF standards	4	4	0
3	#MG standards	8	7	1
3	#D standards	4	1	2
4	#OA standards	6	5	1
4	#NBT standards	8	7	0
4	#NF standards	8	8	0
4	#MG standards	6	6	0
4	#D standards	4	0	0
5	#OA standards	3	2	0
5	#NBT standards	10	8	2
5	#NF standards	5	5	0
5	#MG standards	4	4	0
5	#D standards	4	0	0
6	#A standards	6	6	0
6	#NS standards	7	7	0
6	#RP standards	5	5	0
6	#G standards	4	4	0
6	#D standards	4	3	1
7	#RP standards	7	6	1
7	#A standards	4	3	1
7	#NS standards	4	3	1
7	#G standards	5	5	0
7	#D standards	8	7	1
8	#A standards	9	7	2
8	#F standards	5	5	0
8	#NS standards	4	3	0

8	#G standards	6	5	1
8	#D standards	7	6	1
		243	197	26

Utah standards			Massachusetts
Weak	Utah standard appears in different MA grade level	Utah only/no MA counterpart	MA standard appears in other Utah grade level
0	0	2	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	1	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
3	0	1	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
3	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0

0	0	0		0
0	0	0		0
6	1	12		0

MA only/no Utah counterpart

0
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1
0
0
0
1
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1
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Domain	Grade
Number & Operations	K
	1
	2
	3
	3
	4
	4
	5
	5
	6
7	
8	
Number & Operations total	
Ratios & Proportional Relationships	6
	7
Ratios & Proportional Relationships total	
Algebra	K
	1
	2
	3
	4
	5
	6
	7
	8
Algebra total	
Functions	8
Functions total	
Geometry & Measurement	K
	1
	2
	3
	4
	5
	6
	7
	8
Geometry & Measurement total	
Statistics & Probability	K
	1

0
0
8

2
3
4
5
6
7
8

Statistics & Data Science

Utah standards				
Strand	Total Utah standards	Strong	Partial	Weak
#CC standards	8	6	0	0
#NBT standards	1	1	0	0
#NBT standards	7	5	2	0
#NBT standards	7	7	0	0
#NBT standards	4	3	0	0
#NF standards	4	4	0	0
#NBT standards	7	7	0	0
#NF standards	8	8	0	0
#NBT standards	10	8	2	0
#NF standards	5	5	0	0
#NS standards	7	7	0	0
#NS standards	4	3	1	0
#NS standards	4	3	0	0
	76	67	5	0
#RP standards	5	5	0	0
#RP standards	7	6	1	0
soning total	12	11	1	0
#OA standards	4	4	0	0
#OA standards	8	8	0	0
#OA standards	4	4	0	0
#OA standards	7	7	0	0
#OA standards	6	5	1	0
#OA standards	3	2	0	0
#A standards	6	6	0	0
#A standards	4	3	1	0
#A standards	9	7	2	0
	51	46	4	0
#F standards	5	5	0	0
	5	5	0	0
#MG standards	5	4	0	0
#MG standards	7	5	1	0
#MG standards	10	10	0	0
#MG standards	8	7	1	0
#MG standards	6	6	0	0
#MG standards	4	4	0	0
#G standards	4	4	0	0
#G standards	5	5	0	0
#G standards	6	5	1	0
tal	55	50	3	0
#D standards	4	0	3	0
#D standards	4	0	3	0

#D standards	4	1	2	0
#D standards	4	1	2	0
#D standards	4	0	0	3
#D standards	4	0	0	3
#D standards	4	3	1	0
#D standards	8	7	1	0
#D standards	7	6	1	0
total	43	18	13	6

[illegible]

0	1	0
0	1	0
0	1	0
0	1	0
0	0	0
0	0	0
0	0	0
0	0	0
0	6	0

ts standards

MA only/no Utah
counterpart

0

0

0

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3

1

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1

0

5

0

0

% of Utah Standards with Strong
or PartialGrade Level Match to
MA

95%

100%

98%

100%

96%

1
1
0
0
0
0
0
2



Domain	Topic
Algebra	Interpreting Equations & Their Components
Algebra	
Algebra	Solving Equations
Algebra	
Algebra	Algebraic Modeling
Algebra	
Algebra	
Algebra	
Functions	

Functions	
Functions	Functions Basics
Functions	
Functions	
Functions	Functions and Sequences
Functions	
Functions	
Functions	Comparing Linear and Exponential Functions

Functions	
Number Sense & Quantities	Quantitative Reasoning
Geometry	Rigid Transformations
Geometry	
Geometry	
Geometry	
Geometry	
Geometry	Geometric Constructions

Geometry	Attirbutes of Shapes
Data Science	Data & Statistical Reasoning
Data Science	
Data Science	
Data Science	
Data Science	

Data Science	
Matrices & Vectors	Matrix Operations
Matrices & Vectors	
Matrices & Vectors	
Matrices & Vectors	Modeling with Matrices
Matrices & Vectors	
Matrices & Vectors	
Matrices & Vectors	Solving Systems with Matrices
Matrices & Vectors	

of Utah S1 Standards:

40

Utah
S1.A.1 Use the structure of linear expressions and exponential expressions with integer exponents to identify parts of the expression and interpret their meaning in context. Interpret complicated expressions (such as $P(1+r)^n$) by viewing one or more of their parts as a single entity. (MP 7)
S1.A.3 Use algebraic properties of equality as tools to rearrange formulas to isolate a quantity of interest. (MP 5)
S1.A.4 Solve linear equations and inequalities using algebraic tools, starting from the assumption that a solution exists. Communicate clear arguments for equations that do not have one unique solution and justify the results. Interpret solutions and use both inequality and interval notation. (MP 3, 5)
S1.A.5 Solve systems of linear equations using algebraic tools. Understand and justify how equations are manipulated while maintaining the consistency of the system. (MP 3, 5)
S1.A.2 Build symbolic models of linear equations and inequalities, and use them to solve problems in and out of context. (MP 3, 4)
S1.A.6 Interpret whether a solution of a system of linear equations and inequalities is viable or non-viable using graphic and analytic models. Use models of systems of linear equations and inequalities to interpret whether a solution is viable or non-viable. (MP 4)
S1.A.7 Build and use graphic models to analyze and solve systems of two linear equations as well as systems of one linear equation and one exponential equation in two variables and interpret their solutions. (MP 4)
S1.A.8 Build and use graphic models to show the solutions to a linear inequality in two variables as a half-plane, and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes. (MP 4)
S1.F.1 Construct and communicate clear arguments to justify whether a relation is a function. (MP 3)

S1.F.2

Understand the structure of function notation, if f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x . The graph of f is the graph of the equation $y = f(x)$. (MP 7)

S1.F.3

Evaluate functions for inputs in their domains and interpret statements that use function notation in terms of a context. (MP 2)

S1.F.5

Understand and interpret the features of a function represented graphically, numerically and symbolically using interval notation and inequalities by applying and removing context. Focus on these key features: domain, range, intervals of increase and/or decreasing, location of absolute maximum and/or absolute minimum, and intercepts. Build graphic models that satisfy given key features. (MP 2, 4)

S1.F.4

Build and use explicit and recursive equations to model arithmetic and geometric sequences using function notation. Describe and represent the domain of these models as a subset of the integers. (MP 4, 7)

S1.F.8

Build a function that models linear or exponential relationships. Appropriately use explicit and recursive rules to model these relationships and translate between the two forms. (MP 4)

S1.F.9

Construct arguments that use the structures and patterns of relationships to connect arithmetic sequences to linear functions and geometric sequences to exponential functions. (MP 3, 7)

S1.F.6

Build representations that show key features of linear and exponential functions expressed symbolically. Select and use appropriate tools to model with and without technology. (MP 4, 5)

S1.F.7

Compare and contrast the properties of linear and exponential functions (represented in different ways). Formulate and ask questions to highlight the similarities and differences between the functions. (MP 1)

S1.F.10

Use structures and patterns to identify the effect of k on the graph when replacing $f(x)$ by $f(x) + k$. Explore specific values of k for linear and exponential functions in and out of context. (MP 7)

S1.F.11

Communicate clear and reasonable arguments to distinguish between situations that can be modeled with linear functions, exponential functions, or neither. Connect the structure of linear and exponential functions with their parameters, ($y=mx+b$, $y=bx(a)$). Justify that a quantity increasing exponentially eventually exceeds a quantity increasing linearly. (MP 3, 7)

No corresponding Utah standard

S1.G.1

Describe and represent the underlying structure of translations, rotations and reflections, in terms of angles, circles, perpendicular lines, parallel lines, and line segments. (MP 7)

S1.G.2

Construct and clearly communicate definitions of the rigid transformations to show that these transformations are functions that take points in the plane as inputs and give corresponding points as outputs. (MP 3)

S1.G.3

Select and use tools to strategically perform rigid transformations. Attend to precision when identifying and describing the transformation or the sequence of transformations to determine whether or not two figures are congruent. Understand that the image created from a rigid transformation or a sequence of rigid transformations is congruent to the pre-image. (MP 5, 6)

S1.G.4

Construct and communicate clear and reasonable arguments about reflection and rotational symmetries of parallelograms and regular polygons. Use reflections and rotations to informally justify attributes of parallelograms including rhombus, rectangles and squares. (MP 3)

S1.G.6

Construct, justify and communicate clear arguments that show how the criteria for triangle congruence (ASA, SAS, SSS) can be established using the definition of congruence in terms of rigid motions. (MP 3)

S1.G.5

Precisely construct geometric objects including equilateral triangle, rhombus, square, parallel line, perpendicular bisector, and angle bisector. Communicate clearly about the use of geometric construction tools and analyze the underlying structure of geometric objects as revealed by the tools. (MP 3)

S1.G.7

Justify whether or not a quadrilateral has the attributes of a square, rectangle, rhombus or parallelogram. Connect the Pythagorean Theorem to the distance formula and utilize slope along with distance as a means for justification. (MP 3)

S1.D.1

Ask statistical questions to investigate situations that can be explored using random samples from populations to make inferences about differences between two populations or associations between two quantitative variables. Explain and justify the distinction between correlation and causation. (MP 1, 3)

S1.D.2

Select the appropriate statistical tools to create a data collection plan. Collect and organize primary data for the statistical investigative question of interest or determine the validity that the data collected is useful to answer the statistical question of interest when using secondary data. (MP 5)

S1.D.3

Compare two or more distributions with precision by selecting graphical displays (dot plots, histograms, and modified box plots to show outliers) that highlight features of interest. Analyze data by comparing measures of center (mean and median) and measures of variability (range, inter-quartile range and standard deviation) that are appropriate for the shape (skew, symmetry, outliers, modes) of the data distribution. Recognize how standard deviation builds on the mean absolute deviation and is another measure of how data values vary in a distribution. (MP 6)

S1.D.4

Analyze data to explore the association between two quantitative variables by using a scatterplot to determine and describe patterns of association such as clustering, positive or negative association, linear or nonlinear association, and effects of outliers. Use technology to find and interpret the correlation coefficient and use it to assess the strength of the linear relationship. Attend to precision and reasonableness with calculations. (MP 6)

S1.D.5

Analyze and use statistical evidence to evaluate results and answer statistical investigative questions about the differences between two or more population parameters. Identify ways to refine the question, data collection, visualization, or analysis. (MP 8)

S1.D.6 Justify statistical reasoning to evaluate results from analyses to answer the statistical investigative question about associations between two quantitative variables. For scatter plots that suggest a linear association, represent the relationship with a line of best fit and use the model of the linear equation to solve problems, including interpreting the slope and intercept in the context of the data. Justify statistical reasoning and results to others in a variety of formats including verbal, written, and visual. (MP 3, 8)
S1.M.1 Add, subtract, and multiply matrices of appropriate dimensions using algebraic tools for smaller matrices and technology for larger matrices. (MP 5)
S1.M.3 Communicate understanding that, unlike multiplication of numbers, matrix multiplication for square matrices is not a commutative operation, but still satisfies the associative and distributive properties. (MP 3)
S1.M.4 Communicate understanding that the zero and identity matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers. The determinant of a square matrix is nonzero if and only if the matrix has a multiplicative inverse. (MP 3)
S1.M.2 Use matrices to represent and manipulate data (e.g., to represent payoffs or incidences relationships in a network). Multiply matrices by scalars to produce new matrices and make sense of this product by connecting it with and without a context. (MP 2, 4)
S1.M.5 Use 2x2 matrices to model transformations of the plane, and interpret the absolute value of the determinant in terms of area. (MP 4, 7)
S1.M.6 Model a system of linear equations as a single-matrix equation in a vector variable. (MP 4)
S1.M.7 Solve systems of linear equations up to three variables using matrix row reduction and technology as tools. (MP 5)
S1.M.8 Find the inverse of a matrix if it exists using technology or algebraic tools, and use the inverse to solve systems of linear equations (using technology for matrices of dimensions 3x3 or greater). (MP 5)

Strong alignment
Partial alignment
Different grade level
Weak alignment
Utah only--No Massachusetts analog

Different Utah grade level
Massachusetts only

Massachusetts

A-SSE.1 — Interpret expressions that represent a quantity in terms of its context. a. Interpret parts of an expression, such as terms, factors, and coefficients. b. Interpret complicated expressions by viewing one or more of their parts as a single entity. For example, interpret $P(1 + r)^n$ as the product of P and a factor not depending on P .

A-CED.4 — Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. For example, rearrange Ohm's law $V = IR$ to highlight resistance, R .

A-REI.1 — Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify or refute a solution method. A-REI.3 — Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.

A-REI.5 — Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions. A-REI.6 — Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.

A-CED.1 — Create equations and inequalities in one variable and use them to solve problems. A-CED.2 — Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.

A-CED.3 — Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. [...]

A-REI.6 — Solve systems of linear equations exactly and approximately [...]. A-REI.11 — Explain why the x -coordinates of the points where the graphs of $y = f(x)$ and $y = g(x)$ intersect are the solutions of $f(x) = g(x)$; find the solutions approximately [...]. Include cases where $f(x)$ and/or $g(x)$ are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.

A-REI.12 — Graph the solutions of a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set of a system of linear inequalities in two variables as the intersection of the corresponding half-planes.

F-IF.1 — Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. [...]

F-IF.1 — [...] If f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x . The graph of f is the graph of the equation $y = f(x)$.
F-IF.2 — Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context. [...]
F-IF.4 — For a function that models a relationship between two quantities, interpret key features of graphs and tables [...] and sketch graphs showing key features given a verbal description. Key features include: intercepts; intervals where increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity. F-IF.5 — Relate the domain of a function to its graph [...].
F-IF.3 — Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. F-BF.2 — Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.
F-BF.1 — Write a function that describes a relationship between two quantities. a. Determine an explicit expression, a recursive process, or steps for calculation from a context. F-LE.2 — Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs [...].
F-LE.2 — Construct linear and exponential functions, including arithmetic and geometric sequences [...]. F-LE.1a — Prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals.
F-IF.7 — Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases. [...] e. Graph exponential and logarithmic functions [...].
F-IF.9 — Translate among different representations of functions [...]. Compare properties of two functions each represented in a different way. F-LE.1 — Distinguish between situations that can be modeled with linear functions and with exponential functions. [...]
F-BF.3 — Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. [...]

F-LE.1 — Distinguish between situations that can be modeled with linear functions and with exponential functions. F-LE.3 — Observe, using graphs and tables, that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function. F-LE.5 — Interpret the parameters in a linear or exponential function in terms of a context.

N-Q.1–3 — Reason quantitatively and use units to solve problems: use units to guide the solution of multi-step problems and interpret scale and origin in graphs; define appropriate quantities for descriptive modeling; choose a level of accuracy appropriate to measurement limitations (significant figures, rounding error).

G-CO.4 — Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.

G-CO.2 — Represent transformations in the plane [...]; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not.

G-CO.5 — [...] Specify a sequence of transformations that will carry a given figure onto another. G-CO.6 — Use geometric descriptions of rigid motions [...]; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent.

G-CO.3 — Given a rectangle, parallelogram, trapezoid, or regular polygon, describe the rotations and reflections that carry it onto itself.

G-CO.8 — Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.

G-CO.12 — Make formal geometric constructions with a variety of tools and methods [...]: copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector; and constructing a line parallel to a given line through a point not on the line. G-CO.13 — Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.

G-GPE.4 — Use coordinates to prove simple geometric theorems algebraically including the distance formula and its relationship to the Pythagorean Theorem. [...] prove or disprove that a figure defined by four given points [...] is a rectangle [...]. G-GPE.5 — Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems [...].

S-IC.1 — Understand statistics as a process for making inferences about population parameters based on a random sample from that population. S-ID.9 — Distinguish between correlation and causation.

S-IC.3 — Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each.

S-ID.1 — Represent data with plots on the real number line (dot plots, histograms, and box plots). S-ID.2 — Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets. S-ID.3 — Interpret differences in shape, center, and spread [...], accounting for [...] outliers.

S-ID.6 — Represent data on two quantitative variables on a scatter plot, and describe how the variables are related. S-ID.8 — Compute (using technology) and interpret the correlation coefficient of a linear fit.

S-ID.2 — [...] compare center and spread of two or more different data sets. S-IC.1 — Understand statistics as a process for making inferences about population parameters based on a random sample [...].

S-ID.6a — Fit a linear function to the data and use the fitted function to solve problems in the context of the data. [...] S-ID.7 — Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.

N-VM.8 — (+) Add, subtract, and multiply matrices of appropriate dimensions.

N-VM.9 — (+) Understand that, unlike multiplication of numbers, matrix multiplication for square matrices is not a Commutative operation, but still satisfies the Associative and Distributive properties.

N-VM.10 — (+) Understand that the zero and identity matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers. The determinant of a square matrix is nonzero if and only if the matrix has a multiplicative inverse.

N-VM.6 — (+) Use matrices to represent and manipulate data, e.g., to represent payoffs or incidence relationships in a network. N-VM.7 — (+) Multiply matrices by scalars to produce new matrices [...].

N-VM.12 — (+) Work with 2×2 matrices as transformations of the plane, and interpret the absolute value of the determinant in terms of area.

A-REI.8 — (+) Represent a system of linear equations as a single matrix equation in a vector variable.

A-REI.9 — (+) Find the inverse of a matrix if it exists and use it to solve systems of linear equations (using technology for matrices of dimension 3×3 or greater).

A-REI.9 — (+) Find the inverse of a matrix if it exists and use it to solve systems of linear equations (using technology for matrices of dimension 3×3 or greater).

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Alignment	Commentary
Strong	Near-identical, including the $P(1 + r)^n$ example of viewing parts of an expression as a single entity.
Strong	Both rearrange formulas to isolate a quantity of interest using the reasoning of equation solving.
Strong	Both solve one-variable linear equations/inequalities and justify the reasoning, starting from the assumption that a solution exists.
Strong	Both solve systems of linear equations and justify the manipulations that preserve the solution set.
Strong	Both create and use linear equations and inequalities to model and solve problems.
Strong	Both interpret solutions of systems as viable or non-viable in a modeling context.
Strong	Both solve systems graphically, including a linear-and-exponential pair via the intersection of graphs.
Strong	Near-identical: half-plane solutions and systems of inequalities as intersections of half-planes.
Strong	Both establish what makes a relation a function; Utah frames it as constructing an argument.

Strong	Verbatim match on the meaning of function notation and the graph of f as $y = f(x)$.
Strong	Near-identical: evaluate functions and interpret function-notation statements in context.
Strong	Both interpret key features (domain, range, increase/decrease, extrema, intercepts) across representations and sketch graphs from features.
Strong	Both model arithmetic and geometric sequences explicitly and recursively, with domain a subset of the integers.
Strong	Both build linear/exponential models using explicit and recursive rules and translate between them.
Strong	Both connect arithmetic sequences to linear growth and geometric sequences to exponential growth.
Strong	Both graph linear and exponential functions from symbolic form, by hand and with technology.
Strong	Both compare linear and exponential functions across representations.
Partial	Utah introduces only the vertical translation $f(x) + k$ here for linear/exponential functions; MA's F-BF.3 also includes $kf(x)$, $f(kx)$, and $f(x + k)$. Utah develops the remaining transformations in Secondary II and III (though it never includes the horizontal scaling $f(kx)$).

Strong	Both distinguish linear vs. exponential situations, interpret parameters, and justify that exponential growth eventually overtakes linear growth.
Massachusetts only	Massachusetts devotes a Number & Quantity cluster to reasoning with units, quantities, and accuracy. Utah's secondary standards embed these practices in modeling but have no dedicated standard.
Strong	Near-identical: define the rigid motions in terms of angles, circles, and lines.
Strong	Both treat transformations as functions taking points to points.
Strong	Both use sequences of rigid motions to test congruence and recognize image and pre-image as congruent.
Strong	Both analyze reflection and rotational symmetry of parallelograms and regular polygons.
Strong	Near-identical: derive ASA/SAS/SSS from the rigid-motion definition of congruence.
Strong	Both perform formal constructions (equilateral triangle, square, bisectors, parallel/perpendicular lines).

Strong	Both classify quadrilaterals on the coordinate plane using slope and the distance formula (tied to the Pythagorean Theorem).
Strong	Both pose questions investigated through random sampling and distinguish correlation from causation.
Partial	Both address data-collection design, but Utah's emphasis on building a collection plan and judging the validity of secondary data is broader than MA's S-IC.3, which centers on distinguishing study types.
Strong	Both compare distributions with appropriate plots and with center/spread statistics matched to the data's shape.
Strong	Both use scatter plots and the correlation coefficient to describe and assess a linear relationship.
Strong	Both evaluate statistical evidence to answer comparative questions about populations. Utah adds refining the investigation.

Strong	Both fit a line of best fit and interpret slope and intercept in context.
Strong	Direct match to the MA advanced (+) matrix-operations standard.
Strong	Verbatim match to MA (+) N-VM. 9.
Strong	Verbatim match to MA (+) N-VM. 10.
Strong	Direct match to MA (+) standards on representing data with matrices and scalar multiplication.
Strong	Direct match to MA (+) N-VM. 12.
Strong	Direct match to MA (+) A-REI. 8.
Strong	Both solve linear systems using matrices and technology; Utah names row reduction where MA names the inverse method.
Strong	Verbatim match to MA (+) A-REI. 9.

	Utah strand	Total Utah standards	Strong
8	#A standards	8	8
11	#F standards	11	10
0	#NS standards	0	0
7	#G standards	7	7
6	#D standards	6	5
8	#MV standards	8	8
40	Total	40	38

Partial	Weak	Different MA grade-level	Utah only	Different Utah grade level	MA only
0	0	0	0	0	0
1	0	0	0	0	0
0	0	0	0	0	1
0	0	0	0	0	0
1	0	0	0	0	0
0	0	0	0	0	0
2	0	0	0	0	1

Domain	Topic
Algebra	Linear & Quadratic Functions
Algebra	
Algebra	
Algebra	
Algebra	
Number Sense & Quantities	Rational Exponents
Number Sense & Quantities	
Number Sense & Quantities	

Number Sense & Quantities	Complex Numbers
Number Sense & Quantities	
Number Sense & Quantities	
Number Sense & Quantities	
Functions	Features of Functions
Functions	
Functions	
Functions	

Functions	Modeling with Functions
Functions	
Functions	
Functions	

Geometry	Geometric Proofs
Geometry	Similarity & Dilations
Geometry	Trigonometry & Triangle Similarity
Geometry	

Geometry	Similarity
Geometry	
Geometry	Circles
Geometry	
Geometry	
Geometry	
Geometry	Area & Volume
Geometry	

Geometry	
Geometry	Cross Sections & Solids of Revolution
Geometry	
Geometry	
Geometry	
Data Science	Data & Statistical Reasoning
Data Science	
Data Science	
Data Science	

Matrices & Vectors	Vectors
Matrices & Vectors	
Matrices & Vectors	
Matrices & Vectors	
Matrices & Vectors	

of Utah S2 Standards:
43

Utah
S2.A.1 Use the structure of quadratic and exponential expressions by identifying parts of the expression and interpret in context (ie. Use vertex form of a quadratic to identify the maximum height of an object flying through the air). Use algebraic tools to produce equivalent forms that reveal different properties. (MP 2, 5, 7)
S2.A.2 Use addition, subtraction and multiplication to build new linear and quadratic functions. (MP 4)
S2.A.3 Build symbolic models of linear and quadratic equations and inequalities, and use them to solve problems in and out of context. (MP 3, 4)
S2.A.4 Select and use algebraic and technologic tools to strategically solve quadratic equations and inequalities in one variable. Algebraic tools include taking square roots, completing the square, the quadratic formula, and factoring. (MP 5)
S2.A.5 Select and use algebraic and technologic tools to strategically solve a system of equations consisting of a linear equation and a quadratic equation in two variables. Algebraic tools, including factoring and the quadratic formula, should be used in simpler cases, and technologic tools in more complicated cases. (MP 5)
S2.NS.1 Extend understanding of the structure of integer exponent properties to rational exponents. (MP 8)
S2.NS.2 Use the properties of exponents as tools to rewrite expressions involving radicals and rational exponents in equivalent forms. (MP 5)
S2.NS.3 Use the Fundamental Theorem of Algebra to construct arguments that verify that the solutions to any quadratic equation will always be numbers within the set of complex numbers and will have the form $a + bi$ where a and b are real numbers. (MP 3)

S2.NS.4 Build and use models to solve quadratic equations with real coefficients that have complex solutions, rewriting x^2+4 as $(x + 2i)(x - 2i)$. (MP 4)
S2.NS.5 Find the conjugate of a complex number; use conjugates to find moduli and quotients of complex numbers. Represent the conjugate and moduli on the complex plane. (MP 7)
S2.NS.6 Represent complex numbers on the complex plane in rectangular form, and explain why the rectangular form of a given complex number represents the same number. (MP 3, 4)
S2.NS.7 Represent addition, subtraction, and multiplication geometrically on the complex plane; use properties of this representation for computation. (MP 4)
S2.F.1 Understand and interpret the features of a function represented graphically, numerically and symbolically using interval notation and inequalities by applying and removing context. Focus on these key features: domain, range, intervals of increase and/or decrease, location of absolute maximum and/or absolute minimum, and intercepts. Build graphic models that satisfy given key features. (MP 2, 4)
S2.F.3 Build graphic representations that show key features of quadratic, linear, exponential, absolute value and piecewise functions expressed symbolically. Select and use appropriate tools to model with and without technology. (MP 4, 5)
S2.F.4 Compare and contrast the properties of quadratic, linear, exponential, absolute value and piecewise functions (represented in different ways), including zeros, extreme values, symmetry and percent rate, when appropriate. Formulate and ask questions to highlight the similarities and differences between function types. (MP 1)
S2.F.5 Select and use algebraic tools to create different but equivalent forms of functions that highlight different properties of the function. Contextualize and decontextualize these functions to interpret these properties. (MP 2, 5)

S2.F.7

Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(x+k)$ by exploring specific values of k for quadratic and absolute value functions in and out of context. Attend to precision of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are reasonable. (MP 3, 6)

S2.F.2

Determine the average rate of change of a function over a closed interval while attending to precision and reasonableness. Connect the average rate of change with context appropriately. (MP 2, 6)

S2.F.6

Build a function that models a quadratic relationship. Use structures and patterns to build an equation that models explicit reasoning, or a recursive process. Attend to the precision of notation and labeling while building and using these models. (MP 4, 6, 7)

S2.F.8

Communicate clear and reasonable arguments to distinguish between situations that can be modeled with quadratic, exponential, and linear functions. Interpret the structure of quadratic functions written in different forms with the features of their graphs. (MP 3, 7)

S2.G.1 Construct, justify and communicate clear and reasonable arguments to prove geometric theorems. Support refinement of reasoning by asking questions. Develop flexibility in creating logical arguments and proofs of various formats, including: narrative paragraphs, flow diagrams, two-column format, and diagrams without words. (MP 1, 3)

Proofs should focus on:

a. theorems about lines and angles; vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.

b. theorems about triangles; measures of interior angles of a triangle sum to 180° ; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.

c. theorems about parallelograms; opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals.

S2.G.2

Describe and represent the underlying structures and properties that define dilations and similar shapes. Use the structures and properties of dilation and similarity to solve problems. (MP 7)

S2.G.3

Build and use models that include congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures. Construct, justify and communicate a clear and reasonable proof of the Pythagorean Theorem using triangle similarity. (MP 3, 4)

S2.G.4

Describe and represent side ratios in right triangles based upon the underlying structure of similarity. Connect consistency across similar right triangles to definitions of trigonometric ratios for acute angles. (MP 7)

S2.G.5

Verify, justify and communicate the relationships that exist between trigonometric ratios and trigonometric identities. Keep the focus on the relationship between sine and cosine of complementary angles, the Pythagorean Identity, and the tangent ratio in terms of sine and cosine. (MP 3)

S2.G.6

Flexibly, accurately, and efficiently use trigonometric ratios and the Pythagorean Theorem to solve real-world and mathematical problems that can be modeled with right triangles. (MP 2, 4)

S2.G.7

Construct, justify and communicate a clear and reasonable argument that all circles are similar. Connect the underlying structures of similarity to relationships between angles, segments and arcs within circles. (MP 3, 7)

S2.G.8

Describe and represent structures and patterns between inscribed angles, radii, and chords. Relationships include the relationships between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle. (MP 7)

S2.G.9

Describe and represent, using similarity, the definition of a radian as the ratio of arc length to radius. Create a distinction between arc length and arc measure and be able to attend to precisions while relating each of these to radian measure or the formula for the area of a sector. (MP 6, 7)

S2.G.10

Use structures and patterns to work with equations of circles, find different forms of the equations and different defining features of the circle, including the center, radius, and points located on the circle. Use right triangles with the same hypotenuse length, and the Pythagorean Theorem to derive the equation of a circle. (MP 7)

S2.G.11

Attend to precision and reasonableness with respect to area and volume formulas (circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone) by applying informal arguments about how area and volume scale under similarity transformations. When scale factor k is applied to a figure, area scales by k^2 and volume scales by k^3 . (MP 6)

S2.G.12 Attend to precision and reasonableness while using volume formulas for cylinders, pyramids, cones, and spheres to solve problems. (MP 6)
S2.G.13 Derive the equation of a parabola given a focus and directrix. (MP 3)
S2.G.14 Derive the equations of ellipses and hyperbolas given the foci, using the fact that the sum or difference of distances from the foci is constant. (MP 3)
<i>No corresponding Utah standard</i>
S2.D.1 Ask statistical questions to investigate linear, exponential, and quadratic associations between two quantitative variables. (MP 1)
S2.D.2 Select the appropriate statistical tools to create a data collection plan. Collect and organize primary data to investigate the association between two variables and make conjectures. For secondary data, determine if data collected are useful to answer the statistical question of interest. (MP 5)
S2.D.3 Analyze data to explore the association between two quantitative variables. Use scatter plots to determine and explain patterns of association. Use technology to find and interpret the correlation coefficient and evaluate the reasonableness and strength of the model used. Determine whether a linear, exponential or quadratic function is the most reasonable model for the data. (MP 6, 8)
S2.D.4 Use the statistical evidence to evaluate results from analyses to answer questions about associations between two quantitative variables. Identify ways to refine investigative questions, data collection, visualization, or analysis. Represent the relationship with a curve of best fit and use the model of the equation to solve problems. Justify statistical reasoning and results to others in a variety of formats including verbal, written, and visual. (MP 3, 8)

S2.V.1
Recognize vector quantities as having both magnitude and direction. Represent vector quantities by directed line segments, and use appropriate symbols for vectors and their magnitudes. (MP 7)
S2.V.2
Find and represent the components of a vector by subtracting the coordinates of an initial point from the coordinates of a terminal point. (MP 7)
S2.V.3
Add and subtract vectors and multiply a vector by a scalar. Make sense of the operations by connecting with and without a context. (MP 2)
S2.V.4
Multiply a vector (regarded as a matrix with one column) by a matrix of suitable dimensions to produce another vector. Work with matrices as transformations of vectors. Make sense of this product by connecting it with and without a context. (MP 2)
S2.V.5
Solve real world and mathematical problems involving velocity and other quantities that can be represented by vectors. (MP 2)

Strong alignment
Partial alignment
Different grade level
Weak alignment
Utah only--No Massachusetts analog

Different Utah grade level
Massachusetts only

Massachusetts
A-SSE.3 — Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented. a. Factor a quadratic expression to reveal the zeros [...]. b. Complete the square in a quadratic expression to reveal the maximum or minimum value [...]. c. Use the properties of exponents to transform expressions for exponential functions.
A-APR.1 — Understand that polynomials form a system analogous to the integers [...]. a. Perform operations on polynomial expressions (addition, subtraction, multiplication, division) [...]. b. Factor and/or expand polynomial expressions, identify and combine like terms, and apply the Distributive property.
A-CED.1 — Create equations and inequalities in one variable and use them to solve problems. (Include equations arising from linear and quadratic functions, and simple root and rational functions and exponential functions.)
A-REI.4 — Solve quadratic equations in one variable. a. Use the method of completing the square [...]. b. Solve quadratic equations by inspection, taking square roots, completing the square, the quadratic formula, and factoring [...]. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ [...].
A-REI.7 — Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. For example, find the points of intersection between the line $y = -3x$ and the circle $x^2 + y^2 = 3$.
N-RN.1 — Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values [...].
N-RN.2 — Rewrite expressions involving radicals and rational exponents using the properties of exponents.
N-CN.1 — Know there is a complex number i such that $i^2 = -1$, and every complex number has the form $a + bi$ with a and b real. N-CN.9 — (+) Know the Fundamental Theorem of Algebra; show that it is true for quadratic polynomials.

N-CN.7 — Solve quadratic equations with real coefficients that have complex solutions. N-CN.8 — (+) Extend polynomial identities to the complex numbers. For example, rewrite $x^2 + 4$ as $(x + 2i)(x - 2i)$.

N-CN.3 — (+) Find the conjugate of a complex number; use conjugates to find moduli and quotients of complex numbers.

N-CN.4 — (+) Represent complex numbers on the complex plane in rectangular and polar form (including real and imaginary numbers), and explain why the rectangular and polar forms of a given complex number represent the same number.

N-CN.5 — (+) Represent addition, subtraction, multiplication, and conjugation of complex numbers geometrically on the complex plane; use properties of this representation for computation. [...]

F-IF.4 — For a function that models a relationship between two quantities, interpret key features of graphs and tables [...] and sketch graphs showing key features given a verbal description. [...]

F-IF.7 — Graph functions expressed symbolically and show key features [...]. a. Graph linear and quadratic functions [...]. b. Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions. [...]

F-IF.9 — Translate among different representations of functions [...]. Compare properties of two functions each represented in a different way [...].

F-IF.8 — Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function. a. Use the process of factoring and/or completing the square [...] to show zeros, extreme values, and symmetry [...].

F-BF.3 — Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative) [...]. (Include linear, quadratic, exponential, absolute value, simple rational and radical, logarithmic and trigonometric functions.)

F-IF.6 — Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.

F-BF.1 — Write a function that describes a relationship between two quantities. a. Determine an explicit expression, a recursive process, or steps for calculation from a context. [...]

F-LE.1 — Distinguish between situations that can be modeled with linear functions and with exponential functions. F-IF.8a — Use the process of factoring and/or completing the square [...] to show zeros, extreme values, and symmetry of the graph [...].

G-CO.9 — Prove theorems about lines and angles [...]. G-CO.10 — Prove theorems about triangles [...]. G-CO.11 — Prove theorems about parallelograms [...].

G-SRT.1 — Verify experimentally the properties of dilations given by a center and a scale factor [...]. G-SRT.2 — Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar [...].

G-SRT.4 — Prove theorems about triangles [...]; the Pythagorean Theorem proved using triangle similarity. G-SRT.5 — Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.

G-SRT.6 — Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles.

G-SRT.7 — Explain and use the relationship between the sine and cosine of complementary angles. F-TF.8 — Prove the Pythagorean identity $\sin^2(\theta) + \cos^2(\theta) = 1$ and use it to find $\sin(\theta)$, $\cos(\theta)$, or $\tan(\theta)$ [...].

G-SRT.8 — Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.

G-C.1 — Prove that all circles are similar.

G-C.2 — Identify and describe relationships among inscribed angles, radii, and chords. Include the relationship between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle.

G-C.5 — Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius, and define the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector.

G-GPE.1 — Derive the equation of a circle of given center and radius using the Pythagorean Theorem; complete the square to find the center and radius of a circle given by an equation.

G-GMD.1 — Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone. Use dissection arguments, Cavalieri's principle, and informal limit arguments.

G-GMD.3 — Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.

G-GPE.2 — Derive the equation of a parabola given a focus and directrix.

G-GPE.3 — (+) Derive the equations of ellipses and hyperbolas given the foci, using the fact that the sum or difference of distances from the foci is constant.

G-GMD.4 — Identify the shapes of two-dimensional cross-sections of three-dimensional objects, and identify three-dimensional objects generated by rotations of two-dimensional objects.

S-ID.6 — Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.

S-IC.3 — Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each.

S-ID.6a — Fit a function to the data [...]. Emphasize linear and exponential models. S-ID.8 — Compute (using technology) and interpret the correlation coefficient of a linear fit.

S-ID.6a — Fit a function to the data and use the fitted function to solve problems in the context of the data. S-ID.6b — Informally assess the fit of a function by plotting and analyzing residuals.

N-VM.1 — (+) Recognize vector quantities as having both magnitude and direction. Represent vector quantities by directed line segments, and use appropriate symbols for vectors and their magnitudes [...].
N-VM.2 — (+) Find the components of a vector by subtracting the coordinates of an initial point from the coordinates of a terminal point.
N-VM.4 — (+) Add and subtract vectors [...]. N-VM.5 — (+) Multiply a vector by a scalar [...].
N-VM.11 — (+) Multiply a vector (regarded as a matrix with one column) by a matrix of suitable dimensions to produce another vector. Work with matrices as transformations of vectors.
N-VM.3 — (+) Solve problems involving velocity and other quantities that can be represented by vectors.

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Alignment	Commentary
Strong	Both rewrite quadratic and exponential expressions into equivalent forms (e.g., vertex form) to reveal properties such as maxima.
Strong	Both perform polynomial arithmetic; Utah focuses on linear and quadratic functions at this level.
Strong	Both create and use linear and quadratic equations and inequalities to solve problems.
Strong	Near-identical solution toolkit: square roots, completing the square, the quadratic formula, and factoring.
Strong	Both solve a linear-quadratic system in two variables algebraically and with technology.
Strong	Both extend the properties of integer exponents to rational exponents.
Strong	Verbatim match: rewrite radical and rational-exponent expressions using exponent properties.
Strong	Both use the $a + bi$ form and the Fundamental Theorem of Algebra to argue that quadratics always have complex solutions.

Strong	Near-identical, including the example of rewriting $x^2 + 4$ as $(x + 2i)(x - 2i)$.
Strong	Direct match to MA (+) N-CN.3.
Partial	Utah represents complex numbers in rectangular form only; MA's N-CN.4 also requires polar form.
Strong	Both represent complex-number operations geometrically on the complex plane.
Strong	Both interpret key features of functions across representations and sketch graphs from given features (extended here to quadratics).
Strong	Both graph quadratic, linear, exponential, absolute value, and piecewise functions from symbolic form.
Strong	Both compare properties (zeros, extrema, symmetry) of function families across representations.
Strong	Both produce equivalent forms of a function to reveal different properties.

Partial	Utah explores $f(x) + k$, $kf(x)$, and $f(x + k)$ but omits the horizontal scaling $f(kx)$, which MA's F-BF.3 includes; Utah's standards do not include $f(kx)$ at any secondary level.
Strong	Both calculate and interpret average rate of change over an interval.
Strong	Both build a function (here quadratic) from a context using explicit or recursive reasoning.
Strong	Both distinguish linear/quadratic/exponential models and connect quadratic forms to graph features.

Strong	Near-identical theorem lists for lines/angles, triangles, and parallelograms; Utah additionally names proof formats.
Strong	Both define dilations and similarity via transformations and apply them to solve problems.
Strong	Near-identical: use congruence/similarity criteria and prove the Pythagorean Theorem via similarity.
Strong	Verbatim match: similarity of right triangles defines trigonometric ratios for acute angles.

Strong	Both treat sine/cosine of complementary angles, the Pythagorean identity, and tangent in terms of sine and cosine.
Strong	Verbatim match: solve right triangles using trig ratios and the Pythagorean Theorem.
Strong	Both prove all circles are similar and connect similarity to circle relationships.
Strong	Verbatim match on inscribed angles, radii, chords, and tangent-radius relationships.
Strong	Both define radian measure via similarity (arc length to radius) and the area of a sector.
Strong	Both derive and manipulate the equation of a circle using the Pythagorean Theorem.
Strong	Both give informal arguments for circle/cylinder/pyramid/cone formulas; Utah adds how area (k^2) and volume (k^3) scale under similarity.

Strong	Verbatim match: use volume formulas for cylinders, pyramids, cones, and spheres.
Strong	Verbatim match to MA G-GPE.2.
Strong	Verbatim match to MA (+) G-GPE.3.
Massachusetts only	Massachusetts has a high school standard on cross-sections and solids of revolution. Utah's secondary geometry standards do not include cross-sections.
Strong	Both investigate associations between two quantitative variables; Utah extends model types to quadratic.
Partial	Both address data-collection design, but Utah's emphasis on building a plan and judging secondary-data usefulness is broader than MA's S-IC.3.
Strong	Both fit and evaluate models with the correlation coefficient; Utah includes quadratic as a candidate model.
Strong	Both fit a curve of best fit and use it to solve problems, evaluating the result.

Strong	Verbatim match to MA (+) N-VM. 1.
Strong	Verbatim match to MA (+) N-VM. 2.
Strong	Direct match to MA (+) vector addition/subtraction and scalar multiplication.
Strong	Verbatim match to MA (+) N-VM. 11.
Strong	Direct match to MA (+) N-VM. 3.

	Utah strand
5	#A standards
7	#NS standards
8	#F standards
14	#G standards
4	#D standards
5	#MV standards
	Total

Total Utah standards	Strong	Partial	Weak	Different MA grade-level	Utah only
5	5	0	0	0	0
7	6	1	0	0	0
8	7	1	0	0	0
14	14	0	0	0	0
4	3	1	0	0	0
5	5	0	0	0	0
43	40	3	0	0	0

Different Utah grade level	MA only
0	0
0	0
0	0
0	1
0	0
0	0
0	1

Domain	Topic
Algebra	Features of Expressions & Equations
Algebra	
Algebra	Modeling with Equations & Inequalities
Algebra	
Functions	Features of Functions & Expressions
Functions	
Functions	
Functions	

Functions	Modeling with Functions
Functions	
Functions	Graphical Representations of Functions
Functions	
Geometry	Shapes & Measurement
Geometry	
Geometry	
Data Science	Categorical Data

Data Science	Probability
Data Science	
Data Science	Statistical Reasoning
Data Science	
Data Science	
Data Science	

Data Science

of Utah S3 Standards:
23

Utah
S3.A.1 Interpret polynomial expressions given in factored form or standard form that represent a quantity in terms of a context. Represent polynomial expressions by using technological tools to produce equivalent forms (standard or factored) that reveal different properties, and interpret one or more of their parts as a single entity. (MP 2, 5, 7)
S3.A.4 Solve an equation of the form $f(x)=c$ for a simple function f that has an inverse. Use the attributes of inverse relationships to write inverse expressions. Include linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, logarithmic, square root, and cube root functions. (MP7)
S3.A.2 Create equations and inequalities in one variable to model a context and use them to solve problems. Include equations arising from linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, square root and cube root functions. (MP 3)
S3.A.3 For exponential models, express as a logarithm the solution to $f(t)=ab^{ct} = d$ where a, c, and d are numbers, and the base b is 2 or 10; evaluate the logarithm using technological tools. (MP 2)
S3.F.1 Understand and interpret the features of polynomial, radical or logarithmic functions represented graphically using interval notation and inequalities by applying and removing context. Focus on these key features: domain, range, intervals of increase and/or decrease, location of absolute maximum and/or absolute minimum, intercepts and end behavior. Build graphic models that satisfy given key features. (MP 2, 4)
S3.F.8 Justify that a quantity increasing exponentially eventually exceeds a quantity increasing linearly or quadratically, or (more generally) as a polynomial function. (MP 3)
S3.F.3 Understand and interpret key features (period, midline and amplitude) of sine and cosine functions represented graphically. Build graphic models that satisfy the given key features. (MP 4)
S3.F.2 Build and use models of periodic phenomena with sine and cosine functions that connect real world contexts with amplitude, frequency, and midline. Use structures and patterns to support understanding of a domain extended beyond 0 to 90 degrees, or 0 to $\pi/2$ radians. (MP 4, 7)

S3.F.6

Use the attributes of inverse relationships to build models (tables, graphs, verbal descriptions and equations) for the inverses of linear, exponential, and quadratic functions. (MP 4, 7)

S3.F.7

Determine which function type (polynomial, square root, cubic root, exponential, or trigonometric) best models a given real world context. (MP 4)

S3.F.4

Build graphical representations that show key features of polynomial, square root, cube root, exponential, logarithmic, and trigonometric (sine and cosine) functions expressed symbolically. Select and use appropriate tools to graph, by hand for simple cases, and using technology for more complicated cases. (MP 4, 5)

S3.F.5

Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(x+k)$ by exploring specific values of k for polynomial, square root, cube root, exponential, logarithmic, and trigonometric functions in and out of context. Attend to precision of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are reasonable. (MP 3, 6)

S3.G.1

Use geometric shapes, their measures, and their properties to model real world objects and solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost). Use these models to ask targeted and probing questions with respect to area and volume in context. (MP 1, 2, 4)

S3.G.2

Apply concepts of density based on area and volume in modeling situations. (MP4)

S3.G.3

Attend to precision and reasonableness while using volume formulas for cylinders, pyramids, cones, and spheres to solve problems. (MP 6)

S3.D.1

Describe and represent structures and patterns of data on two categorical variables. Attend to precision and reasonableness when summarizing categorical data in two-way frequency models, and construct, justify, and communicate clear and reasonable arguments about possible associations and trends in the data. (MP 3, 6, 7)

S3.D.2

Build and use probability models including organized lists, venn-diagrams, tree diagrams, and two-way tables to find or estimate probabilities of compound or conditional events. (MP 4)

S3.D.3

Use multiple representations as tools to describe and represent structure to build understanding of the addition rule, $P(A \cup B) = P(A) + P(B) - P(A \cap B)$. Understand the conditional probability of A given B as $P(A \cap B)/P(B)$. Interpret independence of A and B as saying that the conditional probability of B given A is the same as the probability of B. (MP 7)

S3.D.4

Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Select and use physical and/or tech tools to estimate areas under the normal curve. (MP 5)

S3.D.5

Formulate statistical investigative questions that are either summary-based or comparative for surveys, observational studies, or experiments using primary and/or secondary data. Select appropriate statistical tools to develop a plan for data collection and analysis to address these questions. (MP 1, 5)

S3.D.6

Select appropriate statistical tools to implement a data collection plan for primary data related to an investigative question. When using secondary data, assess its validity and relevance to answering the question. Construct an argument justifying the chosen data collection method (survey, observational study or experiment). Understand and apply best practices for designing sample surveys, experiments, and observational studies. (MP 3, 5)

S3.D.7

Attend to precision and reasonableness when summarizing and organizing collected data to answer an investigative question using tables, graphs, and numerical summary statistics. Use models from sample data to estimate population means or proportions. Employ simulation models for random sampling to determine approximate sampling distributions and compute p-values from those distributions. (MP 4, 6)

S3.D.8

Use statistical evidence from the analyses to evaluate results and answer questions. Identify ways to refine investigative questions, data collection, visualization, or analysis. Justify outcomes or estimates of population characteristics, considering their plausibility compared to chance variation, in a variety of formats (verbal, written, visual). Communicate the interpretation of simulated p-values and determine statistical significance. (MP 3, 8)

Strong alignment
Partial alignment
Different grade level
Weak alignment
Utah only--No Massachusetts analog

Different Utah grade level
Massachusetts only

Massachusetts

A-SSE.1 — Interpret expressions that represent a quantity in terms of its context [...]. A-SSE.2 — Use the structure of an expression to identify ways to rewrite it. A-APR.3 — Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph [...].

F-BF.4 — Find inverse functions algebraically and graphically. a. Solve an equation of the form $f(x) = c$ for a simple function f that has an inverse and write an expression for the inverse. [...]

A-CED.1 — Create equations and inequalities in one variable and use them to solve problems. (Include equations arising from linear and quadratic functions, and simple root and rational functions and exponential functions.)

F-LE.4 — For exponential models, express as a logarithm the solution to $ab^{ct} = d$ where a , c , and d are numbers and the base b is 2, 10, or e ; evaluate the logarithm using technology.

F-IF.4 — [...] interpret key features of graphs and tables [...] Key features include: intercepts; intervals where increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity. F-IF.7 — Graph functions expressed symbolically and show key features [...].

F-LE.3 — Observe, using graphs and tables, that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.

F-IF.7e — Graph [...] trigonometric functions, showing period, midline, and amplitude.

F-TF.5 — Choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline. F-TF.2 — Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers [...].

F-BF.4 — Find inverse functions algebraically and graphically. [...]

F-IF.10 — Given algebraic, numeric and/or graphical representations of functions, recognize the function as polynomial, rational, logarithmic, exponential, or trigonometric.
F-LE.1 — Distinguish between situations that can be modeled with linear functions and with exponential functions.

F-IF.7 — Graph functions expressed symbolically and show key features [...]. c. Graph polynomial functions [...]. e. Graph exponential and logarithmic functions [...] and trigonometric functions [...].

F-BF.3 — Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative) [...].

G-MG.1 — Use geometric shapes, their measures, and their properties to describe objects [...]. G-MG.3 — Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost) [...].

G-MG.2 — Apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot).

G-GMD.3 — Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.

S-ID.5 — Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.

S-CP.1 — Describe events as subsets of a sample space [...]. S-CP.4 — Construct and interpret two-way frequency tables of data [...]; use the two-way table as a sample space to decide if events are independent and to approximate conditional probabilities.

S-CP.7 — Apply the Addition Rule, $P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$ [...]. S-CP.3 — Understand the conditional probability of A given B as $P(A \text{ and } B)/P(B)$ [...]. S-CP.2 — Understand that two events A and B are independent if [...].

S-ID.4 — Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets, and tables to estimate areas under the normal curve.

S-IC.3 — Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each.

S-IC.3 — Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each.

S-IC.4 — Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling. S-IC.5 — Use data from a randomized experiment to compare two treatments; use simulations to decide if differences between parameters are significant.

S-IC.5 — Use data from a randomized experiment to compare two treatments; use simulations to decide if differences between parameters are significant. S-IC.6 — Evaluate reports based on data.

95.7%

4.3%

0.0%

0.0%

0.0%

100.0%

0

0

Alignment	Commentary
Strong	Both interpret and rewrite polynomial expressions (factored/standard form) to reveal different properties.
Strong	Both solve $f(x) = c$ for an invertible function and write the inverse expression.
Strong	Both create one-variable equations/inequalities across function families; Utah explicitly adds simple cubic, square root, and cube root.
Strong	Near-identical; MA also allows base e , while Utah limits the base to 2 or 10.
Strong	Both interpret key features (including end behavior) of polynomial, radical, and logarithmic functions.
Strong	Verbatim match: exponential growth eventually exceeds linear, quadratic, or polynomial growth.
Strong	Both interpret and graph period, midline, and amplitude of sine and cosine functions.
Strong	Both model periodic phenomena with sine/cosine (amplitude, frequency, midline) and extend the domain beyond acute angles.

Strong	Both build inverses of linear, exponential, and quadratic functions across representations.
Strong	Both identify which function family best fits a context.
Strong	Both graph polynomial, radical, exponential, logarithmic, and trigonometric functions from symbolic form.
Partial	Utah extends $f(x) + k$, $kf(x)$, and $f(x + k)$ to more function families but still omits the horizontal scaling $f(kx)$ that MA's F-BF.3 requires.
Strong	Both model real-world objects with geometric shapes and solve design problems with constraints/cost.
Strong	Verbatim match: apply area/volume-based density in modeling.
Strong	Verbatim match: use volume formulas for cylinders, pyramids, cones, and spheres.
Strong	Both summarize two-way categorical data and identify associations and trends.

Strong	Both build probability models (lists, tree diagrams, two-way tables) for compound and conditional events.
Strong	Near-identical: the Addition Rule, conditional probability, and the independence interpretation.
Strong	Verbatim match: fit data to a normal distribution and estimate areas under the normal curve.
Strong	Both frame investigations around surveys, observational studies, and experiments and plan data collection accordingly.
Strong	Both apply best practices for designing surveys, experiments, and observational studies and justify the method chosen.
Strong	Both use simulation models of random sampling to estimate population parameters and assess significance (p-values).

Strong

Both evaluate analytic results against chance variation, interpret simulated p-values, and determine significance.

	Utah strand	Total Utah standards
4	#A standards	4
8	#F standards	8
3	#G standards	3
8	#D standards	8
	Total	23

Strong	Partial	Weak	Different MA grade-level	Utah only	Different Utah grade level
4	0	0	0	0	0
7	1	0	0	0	0
3	0	0	0	0	0
8	0	0	0	0	0
22	1	0	0	0	0

MA only

0

0

0

0

0

Course	Strand	Total standards
S1	Interpreting Equations & Their Components	2
S1	Solving Equations	2
S1	Algebraic Modeling	4
S1	Functions Basics	4
S1	Functions and Sequences	3
S1	Comparing Linear and Exponential Functions	4
S1	Quantitative Reasoning	0
S1	Rigid Transformations	5
S1	Geometric Constructions	1
S1	Attributes of Shapes	1
S1	Data & Statistical Reasoning	6
S1	Matrix Operations	3
S1	Modeling with Matrices	3
S1	Solving Systems with Matrices	2
S1 Totals		40
S2	Linear & Quadratic Equations & Expressions	5
S2	Features of Functions	5
S2	Modeling with Functions	3
S2	Rational Exponents	2
S2	Complex Numbers	5
S2	Geometric Proofs	1
S2	Similarity & Dilations	1
S2	Trigonometry & Triangle Similarity	4
S2	Circles	4
S2	Area & Volume	2
S2	Cross Sections & Solids of Revolution	2
S2	Data & Statistical Reasoning	4
S2	Vectors	5
S2 Totals		43
S3	Features of Equations & Expressions	2
S3	Modeling with Equations & Inequalities	2
S3	Features of Functions & Expressions	3
S3	Modeling with Functions	3
S3	Graphical Representations of Functions	2
S3	Shapes & Measurement	3
S3	Categorical Data	1
S3	Probability	2
S3	Statistical Reasoning	5
S3 Totals		23
Overall totals		106

Utah standards			
Strong	Partial	Weak	Utah standard appears in different Massachusetts grade level
2	0	0	0
2	0	0	0
4	0	0	0
4	0	0	0
3	0	0	0
3	1	0	0
0	0	0	0
5	0	0	0
1	0	0	0
1	0	0	0
5	1	0	0
3	0	0	0
3	0	0	0
2	0	0	0
38	2	0	0
5	0	0	0
4	1	0	0
3	0	0	0
2	0	0	0
4	1	0	0
1	0	0	0
1	0	0	0
4	0	0	0
4	0	0	0
2	0	0	0
2	0	0	0
3	1	0	0
5	0	0	0
40	3	0	0
2	0	0	0
2	0	0	0
3	0	0	0
3	0	0	0
1	1	0	0
3	0	0	0
1	0	0	0
2	0	0	0
5	0	0	0
22	1	0	0
100	6	0	0

	Massachusetts standards	
Utah only/no Massachusetts counterpart	Massachusetts standard appears in other Utah grade level	Massachusetts only/no Utah counterpart
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	1
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	1
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	1
0	0	0
0	0	0
0	0	1
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	2

Domain

Algebra

Algebra Totals:

Functions

Functions Totals:

Number Systems & Quantities

Number Systems & Quantities To

Geometry

Geometry Totals:

Data Science

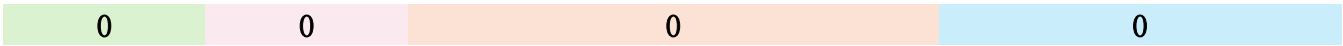
Data Science Totals:

Matrices & Vectors

Matrices & Vectors Totals:

Topic	Course	Total standards	Strong
Interpreting Equations & Their Components	S1	2	2
Solving Equations	S1	2	2
Algebraic Modeling	S1	4	4
Linear & Quadratic Equations & Expressions	S2	5	5
Features of Equations & Expressions	S3	2	2
Modeling with Equations & Inequalities	S3	2	2
		17	17
Functions Basics	S1	4	4
Functions and Sequences	S1	3	3
Comparing Linear and Exponential Functions	S1	4	3
Features of Functions	S2	5	4
Modeling with Functions	S2	3	3
Features of Functions & Expressions	S3	3	3
Modeling with Functions	S3	3	3
Graphical Representations of Functions	S3	2	1
		27	24
Quantitative Reasoning	S1	0	0
Rational Exponents	S2	2	2
Complex Numbers	S2	5	4
Totals:		7	6
Rigid Transformations	S1	5	5
Geometric Constructions	S1	1	1
Attributes of Shapes	S1	1	1
Geometric Proofs	S2	1	1
Similarity & Dilations	S2	1	1
Trigonometry & Triangle Similarity	S2	4	4
Circles	S2	4	4
Area & Volume	S2	2	2
Cross Sections & Solids of Revolution	S2	2	2
Shapes & Measurement	S3	3	3
		24	24
Data & Statistical Reasoning	S1	6	5
Data & Statistical Reasoning	S2	4	3
Categorical Data	S3	1	1
Probability	S3	2	2
Statistical Reasoning	S3	5	5
		18	16
Matrix Operations	S1	3	3
Modeling with Matrices	S1	3	3
Solving Systems with Matrices	S1	2	2
Vectors	S2	5	5

Utah standards			
		Utah standard appears in different Massachusetts grade level	Utah only/no Massachusetts counterpart
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
3	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
2	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



	0	0
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% of Utah Standards with Strong or Partial Alignment to Massachusetts Same Grade Band Standards



100%

Domain	Topic
Counting & Cardinality	Counting sequence
Counting & Cardinality	
Counting & Cardinality	
Counting & Cardinality	
Counting & Cardinality	Counting collections

Counting & Cardinality	
Counting & Cardinality	
Counting & Cardinality	Reading & writing numbers
Counting & Cardinality	Comparing numbers
Counting & Cardinality	
Counting & Cardinality	Subitizing
Operations & Algebraic Thinking	

Operations & Algebraic Thinking	Adding & subtracting within 10
Operations & Algebraic Thinking	Composing & decomposing
Operations & Algebraic Thinking	Fluency to 5
Number & Operations in Base 10	Place value foundations (11–19)
Measurement & Geometry	Shapes
Measurement & Geometry	
Measurement & Geometry	

Measurement & Geometry	Measurable attributes
Measurement & Geometry	
Data Science	Working with data
Data Science	
Data Science	
Data Science	
Data Science	Patterns

of Utah K Standards:

22

Utah

K.CC.1 Accurately recite numbers in sequence from 1 to 100 by ones and tens. Accurately count backward from 10. Attend to the counting structure. (MP 6, 7)

K.CC.2 Accurately count forward from a given number between 1 and 100. Attend to the counting structure. (MP 6, 7)

K.CC.7 Identify and justify an object's ordinal position, using precise mathematical language. Order quantities or numerals using the ordinal words "first" through "tenth." (MP 3, 6)

No corresponding Utah Kindergarten benchmark

K.CC.3 Use one-to-one correspondence to accurately identify the quantity of objects in a group of 0–20. Understand that the last number stated represents the number of objects counted. (MP 6)

K.CC.4 Given a number 1-20, count out that many objects. When counting objects, build models to show that each successive number refers to a quantity that is one greater than the previous number. (MP 4)

No corresponding Utah Kindergarten benchmark

K.CC.5 Read and write numbers 0 to 20 using base-ten numerals with precision. Represent a quantity of 0 to 20 objects with written numerals. (MP 6)

K.CC.6 Identify and compare quantities of objects and numerals up to 10 using the words "greater than," "less than," and "equal to." Use matching or counting strategies and reasoning to justify comparisons. (MP 3)

No corresponding Utah Kindergarten benchmark

K.CC.8 Use patterns and structures to subitize quantities up to 10. (MP 7)

K.OA.1 Represent addition and subtraction with sums and minuends up to and including 10 using a variety of tools and models. Attend to the precision and reasonableness of results. (MP 4, 5, 6)

K.OA.2 Build and use models to solve addition and subtraction story problems with sums or minuends up to and including 10. Add or remove story context to solve problem type situations of adding to and taking from with result unknown, putting together with the total unknown, and putting together with both addends unknown. (MP 2, 4)

K.OA.3 Compose and decompose numbers less than or equal to 10 in multiple ways using a variety of models. Make sums to 10 using numbers 1-9. Make conjectures about why a number or set of objects can be broken apart in multiple ways. (MP 4, 8)

K.OA.4 Use strategies to add and subtract flexibly, accurately, and efficiently using numbers less than or equal to 5. (MP 6)

K.NBT.1 Build and use models to compose and decompose numbers from 11-19 into ten ones and some more ones. Represent structure from those models with math language and an equation (e.g., "Eighteen is the same as 10 and 8"; $18=10+8$). Describe the pattern that teen numbers are always composed of ten ones and some more ones. (MP 4, 7)

K.MG.2 Describe structures of two-dimensional and three-dimensional shapes, including names and attributes, regardless of size or orientation. Describe their relative positions in the environment. (MP 7)

K.MG.3 Analyze, compare, and sort two- and three-dimensional shapes and objects regardless of size or orientation. Justify the sort using informal language to describe similarities, differences, and other attributes (e.g., color, size, shape, number of sides). (MP 3)

K.MG.4 Build and use models to create two- and three-dimensional shapes and objects. Use simple shapes to form larger shapes. (MP 4)

K.MG.1 Describe several measurable attributes of a single object (e.g., length and weight), attending to precision and reasonableness. Compare two objects with a common measurable attribute to see which object has "more of"/ "less of" the attribute, and justify the results. (MP 3, 6)
K.MG.5 Recognize that clocks are tools used to measure and show time. Connect the use of clocks to daily routines and events. Recognize structures and features of clocks. (MP 7)
K.D.1 Ask questions as a class about a given topic that will lead to collecting, analyzing, and interpreting data gathered within the classroom. (MP 1)
K.D.2 Collect and organize data. Build data models with up to three categories. (MP 4)
K.D.3 Analyze data by observing patterns and structures in data models. Accurately count the number of objects or data points in each category. (MP 6, 7)
K.D.4 Interpret data to identify and justify which groups contain more, less, or the same amount by comparing the number in each category. (MP 3)
<i>No corresponding Utah Kindergarten benchmark</i>

Strong alignment
Partial alignment
Different grade level
Weak alignment
Utah only

Different Utah grade level
Minnesota only

Minnesota
0.3.5.4 Count forward, with and without objects, to at least 31. Count backward from 20. (MP6) 0.3.7.2 Recognize patterns in counting. Skip count by 10s starting at zero up to 100. (MP7)
0.3.5.4 Count forward, with and without objects, to at least 31. Count backward from 20. (MP6)
0.3.5.1 ... Name the position of an object in a sequence (ordinal count). (MP1, MP6)
0.3.5.5 Find a number that is 1 more or 1 less than a given number. (MP7, MP8)
0.3.5.1 Recognize that a number can be used to represent how many objects are in a set or to represent the position of an object in a sequence. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number with one and only one object. Understand that the last number said tells the number of objects counted. Understand that each successive number refers to a quantity that is one more. Name the position of an object in a sequence (ordinal count). (MP1, MP6) 0.3.5.2 Count collections of objects up to 31 by grouping in 10s using ten-frames, cups or other tools. (MP6, MP7)

0.3.5.1 Recognize that a number can be used to represent how many objects are in a set or to represent the position of an object in a sequence. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number with one and only one object. Understand that the last number said tells the number of objects counted.

Understand that each successive number refers to a quantity that is one more. Name the position of an object in a sequence (ordinal count). (MP1, MP6)

0.3.5.2 Count collections of objects up to 31 by grouping in 10s using ten-frames, cups or other tools. (MP6, MP7)

0.3.5.3 Read, write, compare, order and represent whole numbers from 0 to at least 31 (with 0 representing the count of no objects) to answer the question "how many?". Representations may include numerals, pictures, real objects, picture graphs, spoken words and manipulatives, such as connecting cubes. The numbers from 11 to 19 are composed of a 10 and one, two, three, four, five, six, seven, eight or nine ones. (MP4, MP8)

0.3.6.1 Identify whether the number of objects in one group is greater than, less than or equal to the number of objects in another group (by using matching, counting strategies and a number line). (MP2, MP5)

0.3.6.2 Recognize that the equal sign ($=$) is a comparison symbol of two math expressions of equal value number. (MP6)

No corresponding Minnesota Kindergarten benchmark

0.3.5.6 Solve and represent a variety of addition and subtraction contextual situation types using objects, drawings, mental images or equations within 10. (MP4, MP5)

0.3.5.6 Solve and represent a variety of addition and subtraction contextual situation types using objects, drawings, mental images or equations within 10. (MP4, MP5)
0.3.5.7 Compose and decompose numbers less than or equal to 10 into pairs in more than one way with objects and pictures. Record each decomposition with a drawing or equation. (MP7)
0.3.5.8 Fluently add and subtract within 5. (MP2)
0.3.5.3 Read, write, compare, order and represent whole numbers from 0 to at least 31 ... The numbers from 11 to 19 are composed of a 10 and one, two, three, four, five, six, seven, eight or nine ones. (MP4, MP8)
0.2.4.2 Identify and compare two- and three-dimensional shapes such as squares, circles, triangles, rectangles, trapezoids, hexagons, cubes, cones, cylinders and spheres using informal language to describe their similarities, differences, parts and other attributes. (MP2)
0.2.4.4 Describe objects in the environment using names of shapes. Describe the relative positions of these objects using terms such as above, below, beside, in front of, behind and next to. (MP1, MP6)
0.2.4.1 Sort objects using characteristics such as shape, size, color and thickness. (MP1, MP3)
0.2.4.2 Identify and compare two- and three-dimensional shapes such as squares, circles, triangles, rectangles, trapezoids, hexagons, cubes, cones, cylinders and spheres using informal language to describe their similarities, differences, parts and other attributes. (MP2)
0.2.4.3 Compose, decompose and name simple shapes. Recognize shapes regardless of their overall size and orientation. (MP1, MP2)

0.2.3.1 Compare objects with a measurable attribute in common, to see which object has "more of," "less of" or the "same as" the attribute and explain the reasoning. (MP3, MP5)
0.2.3.2 Describe several measurable attributes of objects such as length and weight.
<i>No corresponding Minnesota Kindergarten benchmark</i>
0.1.1.1 Notice and describe patterns in data-rich situations. (MP1, MP7)
0.1.1.2 Organize objects, draw pictures or use tally marks to represent data and communicate observations. (MP3, MP6)
0.1.1.1 Notice and describe patterns in data-rich situations. (MP1, MP7)
0.3.6.1 Identify whether the number of objects in one group is greater than, less than or equal to the number of objects in another group (by using matching, counting strategies and a number line). (MP2, MP5)
0.3.7.1 Recognize, create, complete and extend simple patterns using shape, color, size, number, sounds and movements. Patterns may be repeating, growing or shrinking. (MP1, MP7)

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Alignment	Commentary
Partial	Both address rote counting forward, backward, and by tens. Utah requires reciting to 100 by ones; MN forward counting only reaches 31. MN counts backward from 20 (Utah from 10). The 'by tens to 100' element is matched by 0.3.7.2.
Partial	Both require counting forward. Utah expects counting forward from any given number up to 100; MN counts forward only to at least 31 and does not explicitly require starting from a given number.
Partial	MN's 0.3.5.1 includes naming the ordinal position of an object, but Utah is more specific (ordinal words first through tenth, ordering numerals, and justifying with precise language). Ordinal content is embedded rather than its own benchmark in MN.
Minnesota only	MN has a dedicated '1 more / 1 less' benchmark. Utah embeds 'one greater than the previous number' within counting (K.CC.4) but has no standalone standard, and does not address '1 less.'
Partial	Both establish one-to-one correspondence and cardinality (the last number counted tells how many). MN does not bound the range for cardinality while Utah specifies 0–20. Also, MN's standard about cardinality includes expectations about the successor principle ("Understand that each successive number refers to a quantity that is one more") and about ordinality "Name the position of an object in a sequence (ordinal count)") while Utah's K.CC.3 does not. Successor principle and ordinality are covered in a different Utah standards (K.CC.4 and K.CC.7). Note that MN's 0.3.5.2 includes base 10 grouping in addition to one-to-one correspondence and cardinality (precursor/ pre-arithmetic skills). Also note the difference in ranges, with MN specifying a larger number (31).

Partial	The 'each successive number is one more/one greater' idea matches closely. However, Utah's distinct expectation of counting out (producing) a given number of objects is not explicitly stated in MN, which focuses on enumerating an existing set. In addition, Utah specifies how students can practice or demonstrate the successor principle (use of models).
Minnesota only	MN expects counting collections to 31 by grouping in tens. Utah K addresses grouping into tens only within the teen-number standard (K.NBT.1, 11–19), not as counting larger collections by tens.
Strong	Both require reading, writing, and representing numbers with numerals. MN's range (0 to at least 31) exceeds Utah's (0–20), fully covering it. MN's standard also includes comparing and ordering whole numbers while Utah's K.CC.5 does not.
Strong	Direct match: both compare quantities as greater than / less than / equal to using matching and counting strategies. Utah caps at 10 and adds comparison of numerals; MN does not state a range. Additionally, MN specifies uses of a number line for number comparison.
Different Utah grade level	Understanding the meaning of the equal sign is not an explicit Utah Kindergarten standard, but it is addressed in Utah's 1.OA.8.
Utah only	Subitizing (instantly recognizing quantities) is not addressed in the Minnesota Kindergarten benchmarks.
Strong	Both require representing addition and subtraction within 10 using a variety of tools/models. MN frames it through contextual situations; the representational core is the same.

Strong	Both target solving a variety of addition/subtraction story (contextual) problem types within 10 using models. Utah enumerates the specific problem-type situations; MN refers to them collectively.
Strong	Nearly identical: composing and decomposing numbers up to 10 in more than one way with models, recording each decomposition. Utah adds making conjectures about why; MN adds recording with a drawing/equation.
Strong	Direct match: both require fluent/efficient addition and subtraction within 5.
Partial	MN states the teen-number composition (a 10 and some ones) inside a broader number benchmark, but does not require building models or representing the structure with an equation as Utah explicitly does.
Strong	0.2.4.2 covers naming 2-D/3-D shapes and their attributes, and 0.2.4.4 covers describing shapes and their relative positions in the environment, matching both parts of the Utah standard.
Strong	0.2.4.1 directly addresses sorting by characteristics (shape, size, color), and 0.2.4.2 addresses comparing/analyzing shapes with informal language about similarities and differences — together matching the Utah standard.
Strong	Both address composing simple shapes (using simple shapes to make larger ones). MN frames it as compose/decompose/name; Utah frames it as building and using models to create shapes.

Strong	Two MN benchmarks together cover both halves of the Utah standard: 0.2.3.2 (describe measurable attributes such as length and weight) and 0.2.3.1 (compare two objects on a common attribute as more of/less of and explain).
Utah only	Time and clocks are not addressed in the Minnesota Kindergarten benchmarks.
Partial	MN's data anchor references formulating statistical questions, but the specific K benchmark (0.1.1.1) is about noticing/describing patterns, not students posing the questions that drive data collection. Only a loose conceptual overlap.
Strong	Both require collecting/organizing and representing data. Utah specifies up to three categories; MN specifies organizing objects, drawings, or tally marks, but the core skill is the same.
Partial	Both involve observing patterns in data. However, Utah additionally requires accurately counting the number of data points in each category, which the MN benchmark does not state.
Partial	Both compare group sizes as more/less/same (greater/less/equal). The match is partial because MN frames this as a number-comparison benchmark rather than as interpreting data in a data model/display.
Minnesota only	Recognizing, creating, and extending repeating/growing/shrinking patterns is a Minnesota Kindergarten benchmark with no counterpart in the Utah Kindergarten standards.

Utah strand	Total Utah standards
#CC standards	8
#OA standards	4
#NBT standards	1
#MG standards	5
#D standards	4
Total	22

Strong	Partial	Weak	Different MN grade-level	Utah only
2	5	0	0	1
4	0	0	0	0
0	1	0	0	0
4	0	0	0	1
1	3	0	0	0
11	9	0	0	2

Different Utah grade level	MN only
1	2
0	0
0	0
0	0
0	1
1	3

Domain	Topic
Operations & Algebraic Thinking	Patterns & algebraic thinking
Operations & Algebraic Thinking	
Operations & Algebraic Thinking	
Operations & Algebraic Thinking	
Operations & Algebraic Thinking	
Operations & Algebraic Thinking	Add/subtract problem types
Operations & Algebraic Thinking	
Operations & Algebraic Thinking	
Operations & Algebraic Thinking	Fluency / basic facts

Operations & Algebraic Thinking	Structure of Whole Numbers
Operations & Algebraic Thinking	
Operations & Algebraic Thinking	
Operations & Algebraic Thinking	Two-digit place value & arithmetic
Number & Operations in Base 10	
Number & Operations in Base 10	
Number & Operations in Base 10	
Number & Operations in Base 10	
Number & Operations in Base 10	
Number & Operations in Base 10	
Number & Operations in Base 10	

Number & Operations in Base 10	Counting and estimating collections to 120
Number & Operations in Base 10	
Number & Operations in Base 10	
Measurement & Geometry	Length measurement
Measurement & Geometry	
Measurement & Geometry	Time (to half hour)
Measurement & Geometry	Money
Measurement & Geometry	Shape Composition & Decomposition
Measurement & Geometry	

Measurement & Geometry	
Measurement & Geometry	Attributes of Shapes
Measurement & Geometry	
Data Science	Data investigations
Data Science	
Data Science	
Data Science	
Data Science	Probability

of Utah Grade 1 Standards:

26

Utah
1.OA.5 Describe structures and relationships to connect counting to addition and subtraction. (MP 7)
1.OA.6 Add and subtract with sums and minuends less than or equal to 20. Connect and justify different strategies for addition and subtraction. (MP 3)
1.OA.8 Build and use models to make sense of the meaning of the equal sign. Make and test conjectures regarding whether addition and subtraction equations are true or false. (MP 4, 8)
<i>No corresponding Utah Grade 1 standard</i>
<i>No corresponding Utah Grade 1 standard</i>
1.OA.1 Build and use models to solve addition and subtraction story problems with sums and minuends less than or equal to 20. Add or remove story context to solve problem type situations of adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions. (MP 2, 4)
1.OA.2 Build and use models to solve story problems involving adding three whole numbers with sums less than or equal to 20. Add or remove context to make sense of problems and solutions. (MP 2, 4)
1.OA.4 Describe and represent subtraction as an unknown-addend problem. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers, and justify the results. (MP 3, 7)
1.OA.7 Use strategies to add and subtract flexibly, accurately, and efficiently with sums and minuends less than or equal to 10. (MP 6)

No corresponding Utah Grade 1 standard

No corresponding Utah Grade 1 standard

No corresponding Utah Grade 1 standard

1.OA.3 Make and test conjectures about properties of addition. Add context to make sense of these properties as strategies to add and subtract. (MP 2, 8)

1.NBT.2 Build and use models to represent and identify the number of tens and ones in a two-digit number. Show place value understanding by bundling ten ones to make a "ten." (MP 4)

1.NBT.3 Compare two two-digit numbers using models and/or place value understanding. Represent the relationship between the two numbers using comparison symbols $<$, $=$, and $>$. (MP 4, 7)

1.NBT.4 Build and use concrete and pictorial models to determine the sum of two two-digit numbers, a two-digit number and a one-digit number, and a two-digit number and a multiple of ten (less than or equal to 90). Use the models to represent and describe the structure of combining tens with tens, ones with ones, and composing ten ones to make a ten. Ask questions to compare concrete and pictorial models. (MP 4, 7, 8)

1.NBT.5 Build and use concrete and pictorial models to subtract a multiple of ten from a larger multiple of ten. Ask questions to compare concrete and pictorial models. (MP 1, 7)

1.NBT.6 Mentally find ten more or ten less than a given two-digit number and justify the result using place value language. (MP 3)

1.NBT.7 Use place value understanding to count forward or backward by tens from any number, and describe the pattern in the ones place and tens place when counting by ten. (MP 7)

1.NBT.1 Count to 120 accurately, starting at any number. Represent a number of objects up to and including 120 with a written numeral. (MP 6)

No corresponding Utah Grade 1 standard

No corresponding Utah Grade 1 standard

1.MG.1 Select a tool to use as a non-standard length unit. Measure by repeating the non-standard length unit. Express the length of the object as a whole number. (MP 5)

1.MG.2 Construct a reasonable argument about the order of three objects sorted by length. Compare the lengths of two objects indirectly using a third object and justify the results. (MP 3)

1.MG.3 Tell and write time in hours and half-hours using analog and digital clocks, attending to precision and reasonableness. (MP 6, 3)

1.MG.4 Describe attributes of and identify common U.S. coins. Attend to precision when representing their comparative values and use appropriate notation (5¢). (MP 6)

1.MG.5 Ask questions to distinguish between defining and non-defining attributes of shapes. Given defining attribute(s), build and draw shapes that possess the defining attribute(s). (MP 1)

1.MG.6 Use structures, patterns, and relationships to create a composite shape formed by two- and three-dimensional shapes and compose new shapes from the composite shape. (MP 7)

1.MG.7 Build and use models to partition circles and rectangles into two or four equal shares. Justify, compare, and evaluate how decomposing a shape into more equal shares creates smaller shares. (MP 3, 4)

No corresponding Utah Grade 1 standard

No corresponding Utah Grade 1 standard

1.D.1 Determine a topic question and ask investigative questions that will lead to collecting, analyzing, and interpreting data within the context of the classroom. (MP 1)

1.D.2 Collect and organize data. Build data visualizations including bar graphs and picture graphs. When given a data set, build data models and visualizations. (MP 4)

1.D.3 Analyze data sets and data visualizations with up to three categories. Ask questions to make sense of the data representation. (MP 1)

1.D.4 Interpret data to answer investigative questions. Construct and justify arguments about the data. (MP 3)

No corresponding Utah Grade 1 standard

Strong alignment

Partial alignment

Different grade level

Weak alignment

Utah only

Different grade level

Minnesota only

Minnesota
1.3.5.9 Add and subtract within 20 ... Use strategies such as counting on, making ten ... (MP2, MP4)
1.3.5.9 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on, making ten, decomposing a number leading to a ten using the relationship between addition and subtraction and creating equivalent but easier or known sums. (MP2, MP4)
1.3.6.2 Determine if equations involving addition and subtraction are true or false, including those with operations on both sides. (MP2)
1.3.7.1 Create simple patterns using objects, pictures, numbers and rules. Identify possible rules to complete or extend patterns. Patterns may be repeating, growing or shrinking. Calculators can be used to create and explore patterns. (MP5, MP7)
1.3.7.3 Describe what is changing and what is staying the same in a visual growing pattern. (MP1, MP8)
1.3.5.6 Solve contextual situations, up to and including 20, using addition and subtraction strategies of adding to, taking from, part-part-whole, difference between and comparing. Solve for unknowns in contextual situations using objects, drawings and equations with unknowns represented by a symbol in all positions (result, change, start). (MP2, MP4)
<i>No corresponding Minnesota Grade 1 benchmark</i>
1.3.6.3 Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. (MP7)
1.3.5.9 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on, making ten, decomposing a number leading to a ten using the relationship between addition and subtraction and creating equivalent but easier or known sums. (MP2, MP4)

1.3.5.8 Decompose numbers less than or equal to 10 into pairs, in more than one way, using objects or drawings. Record each decomposition with a drawing or equation. (MP7)

1.3.5.10 Use combinations of 10 to add to the next decade through 100. (MP7)

1.3.5.11 Determine the double of any single-digit number. (MP8)

1.3.5.9 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on, making ten, decomposing a number leading to a ten using the relationship between addition and subtraction and creating equivalent but easier or known sums. (MP2, MP4)

1.3.5.4 Use models, pictures or numbers to recognize and describe the place value of numbers between 10 and 120 as a relationship of n groups of 10 plus an amount represented by a single digit ($n \times 10 + a$). (MP4, MP7)

1.3.6.1 Compare two two-digit numbers based on the meaning of the tens and ones digits. (MP3, MP4)

1.3.5.7 Add within 100, including adding a two-digit number with a one-digit number and adding a two-digit number with a multiple of 10 using concrete models, place value language and properties of operations. Understand that in adding two-digit numbers, sometimes it is necessary to compose a new ten. (MP2, MP4)

(No corresponding Minnesota Grade 1 benchmark)

1.3.7.2 Recognize patterns in counting. Skip count by 2s and 5s starting at zero up to 120. Skip count by 10s up to 120 starting at a non-zero number. (MP7)

1.3.7.2 Recognize patterns in counting. Skip count by 2s and 5s starting at zero up to 120. Skip count by 10s up to 120 starting at a non-zero number. (MP7)

1.3.5.3 Count, with or without objects, forward and backward from any given number up to 120. (MP7) 1.3.5.2 Read, write, compare, order and represent whole numbers from 0 to 120. Representations may include numerals, expanded notation, addition and subtraction, pictures, tally marks, number lines and manipulatives such as bundles of sticks, ten frames and base 10 blocks. The numbers 10, 20, 30, 40, 50, 60, 70, 80 and 90 refer to one, two, three, four, five, six, seven, eight or nine groups of 10s. (MP7, MP8)
1.3.5.1 Count collections of objects up to 120 using groups of 5s or 10s. (MP1, MP5)
1.3.5.5 Estimate amounts up to 120 using benchmarks of 5s and 10s. (MP1, MP2)
1.2.3.2 Measure the length of an object in terms of non-standard units. (MP5)
1.2.3.1 Order three objects by length. Compare the lengths of two objects indirectly by using a third object. (MP2, MP5)
<i>No corresponding Minnesota Grade 1 benchmark</i>
1.2.3.3 Identify pennies, nickels and dimes. Find the value of a group of these coins, up to one dollar. (MP1, MP7)
1.2.4.1 Describe attributes of two- and three-dimensional objects, such as triangles, squares, rectangles, circles, rectangular prisms, cylinders, cones and spheres. (MP7, MP8)
1.2.4.2 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles and quarter-circles) to create a composite shape. Decompose composite shapes into triangles, rectangles, squares and sectors. (MP3, MP7)

1.3.5.12 Represent and solve contextual equal sharing situations where a whole number of items is shared equally among 2 groups. Name the fractional amount using the word "half." (MP3, MP2)
1.2.4.3 Describe objects in the environment using names of shapes and describe the relative positions of these objects using left and right. (MP6)
1.2.4.4 Identify shapes regardless of their orientations. (MP1, MP6)
1.1.1.1 Notice and describe patterns in data-rich situations and create statistical investigative questions with teacher guidance. (MP6, MP7)
1.1.1.2 Collect and use data to consider and decide what data will answer a question. Represent the data as a drawing, tally marks and frequency bar graph and digitally communicate observations. (MP1, MP3)
1.1.1.2 Collect and use data to consider and decide what data will answer a question. Represent the data as a drawing, tally marks and frequency bar graph and digitally communicate observations. (MP1, MP3)
1.1.1.2 Collect and use data to consider and decide what data will answer a question. Represent the data as a drawing, tally marks and frequency bar graph and digitally communicate observations. (MP1, MP3)
1.1.2.1 Describe outcomes of events as impossible, possible or certain. (MP1, MP6)

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Alignment	Commentary
Partial	MN's 'counting on' strategy connects counting to addition/subtraction, but Utah's broader expectation of describing structures/relationships that link counting to the operations is not a standalone MN benchmark.
Strong	Both add and subtract within 20 using and connecting multiple strategies. MN 1.3.5.9 lists the strategies explicitly; Utah emphasizes connecting and justifying them.
Strong	Both determine whether addition/subtraction equations are true or false. MN's inclusion of operations on both sides directly develops the meaning of the equal sign that Utah names.
Minnesota only	Creating, extending, and identifying rules for repeating/growing/shrinking patterns is a Minnesota benchmark; Utah has no patterning standard at Grade 1.
Minnesota only	Analyzing what changes and what stays the same in a growing pattern is a Minnesota patterning benchmark with no Utah Grade 1 counterpart.
Strong	Near-identical: both solve addition/subtraction contextual (story) problems within 20 across the same problem-type situations (adding to, taking from, put together/part-part-whole, comparing) with unknowns in all positions.
Utah only	Adding three whole numbers (with sums up to 20) is not addressed as a distinct benchmark in Minnesota Grade 1
Strong	The core skill (determining the unknown whole number in an addition/subtraction equation relating three whole numbers) matches almost verbatim. Utah additionally frames subtraction as an unknown-addend problem and asks students to justify.
Strong	Direct match on fluency within 10. MN 1.3.5.9 states fluency for addition and subtraction within 10, exactly the Utah expectation (the same MN benchmark also supports 1.OA.6). Addition and subtraction within 20 are an added component in MN.

Minnesota only	Decomposing numbers up to 10 into pairs is retained in MN Grade 1; Utah addresses composing/decomposing within 10 in Kindergarten (K.OA.3), not Grade 1.
Minnesota only	Using combinations (bonds) of 10 to bridge to the next decade is a specific MN strategy benchmark with no dedicated Utah Grade 1 counterpart.
Minnesota only	Doubles of single-digit numbers are called out as their own MN benchmark; Utah does not have a corresponding standalone standard.
Weak	MN names computation strategies (which rest implicitly on properties of operations), but it does not require students to make/test conjectures about the properties of addition themselves, as Utah explicitly does.
Strong	Both develop two-digit place value as groups of ten plus ones ($n \times 10 + a$) using models. The bundling of ten ones into a ten is the same conceptual structure. MN also specifies a specific range.
Strong	Both compare two two-digit numbers using place value (meaning of tens and ones). MN does not explicitly name the symbols $<$, $=$, $>$, but the comparison expectation is the same.
Strong	Both add two-digit numbers within 100 (two-digit + one-digit and two-digit + multiple of ten) with concrete models and the need to compose a new ten. Utah also explicitly includes two two-digit numbers.
Utah only	Subtracting a multiple of ten from a larger multiple of ten is not addressed in Minnesota Grade 1, which specifies two-digit addition (1.3.5.7) but not this subtraction case.
Weak	MN's skip counting by tens from a non-zero number touches the same tens-place structure, but it does not require mentally finding ten more / ten less than a given number or justifying with place value language.
Partial	MN's 'skip count by 10s starting at a non-zero number' matches counting forward by tens from any number. However, MN does not include counting backward by tens or describing the ones/tens-place pattern.

Partial	1.3.5.3 covers counting to 120 starting at any number; 1.3.5.2 covers reading, writing, and representing whole numbers to 120 with numerals. However, MN includes counting backward from 120 and comparing numbers up to 120.
Minnesota only	Counting collections to 120 by grouping in 5s or 10s is a distinct MN counting-strategy benchmark; Utah's counting-to-120 standard (1.NBT.1) emphasizes starting at any number rather than grouping to count.
Minnesota only	Estimating quantities using benchmarks of 5s and 10s is not addressed in the Utah Grade 1 standards.
Strong	Both measure length by iterating a non-standard unit. Utah adds selecting the unit/tool and expressing the result as a whole number; the measurement task is the same.
Strong	Near-identical: ordering three objects by length and comparing two objects indirectly using a third. Utah adds the expectation of constructing/justifying the argument.
Utah only	Telling and writing time (hours and half-hours) is not addressed in the Minnesota Grade 1 benchmarks.
Partial	Both identify common U.S. coins and work with their values, but MN extends to finding the value of a group of coins up to a dollar; Utah emphasizes describing attributes, comparative values, and notation.
Partial	MN addresses describing shape attributes, but does not make the defining vs. non-defining attribute distinction, nor require building/drawing shapes that possess given defining attributes.
Strong	Both create composite shapes by composing simpler shapes. MN is limited to two-dimensional shapes; Utah extends to three-dimensional shapes and composing new shapes from the composite.

Weak	MN's equal-sharing benchmark introduces the idea of 'half' but applies it to sharing a set of discrete items among 2 groups, not to partitioning circles and rectangles into two or four equal shares as Utah requires.
Different Utah grade level	Describing relative positions of objects (left/right) in the environment is not a Utah Grade 1 standard; Utah addresses relative position in Kindergarten.
Different Utah grade level	Identifying shapes regardless of orientation is a separate MN benchmark; Utah addresses orientation/size invariance in Kindergarten rather than Grade 1.
Strong	Both center on creating/asking statistical investigative questions that drive data work. MN frames it with teacher guidance; Utah frames it in the classroom context.
Strong	Both collect/organize data and build representations including bar graphs. MN specifies drawings, tally marks, and frequency bar graphs; Utah specifies bar graphs and picture graphs.
Partial	MN involves working with and communicating observations about data representations, but does not specify analyzing data sets with up to three categories or asking questions to interpret the representation as Utah does.
Partial	Both connect data back to a question. MN stops at communicating observations, while Utah additionally requires interpreting data to answer the question and constructing/justifying arguments.
Minnesota only	Probability (describing event likelihood) is a Minnesota Grade 1 benchmark with no counterpart in the Utah Grade 1 standards.

Utah strand
#OA standards
#NBT standards
#MG standards
#D standards

Total

Total Utah standards	Strong	Partial	Weak	Different MN grade-level	Utah only
8	5	1	1	0	1
7	3	2	1	0	1
7	3	2	1	0	1
4	2	2	0	0	0
26	13	7	3	0	3

Different Utah grade level	MN only
0	5
0	2
2	0
0	1
2	8

Domain	Topic
Number & Operations in Base 10	Patterns
Number & Operations in Base 10	
Number & Operations in Base 10	Place value & base ten
Number & Operations in Base 10	
Number & Operations in Base 10	
Number & Operations in Base 10	Addition & Subtraction within 1000
Number & Operations in Base 10	
Number & Operations in Base 10	
Number & Operations in Base 10	

Number & Operations in Base 10	
Operations & Algebraic Thinking	
Operations & Algebraic Thinking	
Operations & Algebraic Thinking	Arrays, repeated addition, & multiplicative structure
Operations & Algebraic Thinking	
Measurement & Geometry	
Measurement & Geometry	Length in standard units
Measurement & Geometry	
Measurement & Geometry	
Measurement & Geometry	
Measurement & Geometry	

Measurement & Geometry	
Measurement & Geometry	Time
Measurement & Geometry	Money
Measurement & Geometry	Shapes
Measurement & Geometry	Fractions & partitioning
Data Science	Data investigations
Data Science	
Data Science	
Data Science	
Data Science	

Data Science	Probability
Data Science	Spatial Relationships

of Utah Grade 2 Standards:
25

Utah
2.NBT.2 Count within 1,000, making conjectures about counting patterns; Skip-count by twos, fives, tens, and hundreds. (MP 8)
<i>(No corresponding Utah Grade 2 standard)</i>
2.NBT.1 Show place value understanding by bundling ten 10s to make a "hundred." Use a variety of models to represent the amount of hundreds, tens, and ones in a three-digit number. Identify the number of hundreds, tens, and ones in a three-digit number and describe the value of each digit. (MP 4)
2.NBT.3 Read three-digit whole numbers and represent the place value structure in those numbers using numerals, base 10 word form, and expanded form. (MP 7)
2.NBT.4 Compare two three-digit numbers using models and/or place value understanding. Represent the relationship between the two numbers using comparison symbols $<$, $=$, and $>$. (MP 4, 7)
2.NBT.5 Use numerical strategies to determine the sum of up to four two-digit numbers, and the difference of two two-digit numbers flexibly, accurately, and efficiently. Justify a chosen strategy using the relationship between addition and subtraction, properties of addition, and/or place value language. (MP 3, 6)
2.NBT.6 Build and use concrete and pictorial models to determine the sums and differences of three-digit numbers with sums and minuends up to and including 999. Use the models to represent and describe the structure of combining hundreds with hundreds, tens with tens, ones with ones, and composing and decomposing tens and hundreds. Ask questions to compare concrete and pictorial models with efficient numerical strategies. (MP 1, 4, 7)
2.NBT.7 Mentally add and subtract multiples of 10 or 100 from a three-digit number and justify the result using place value language. (MP 3)
<i>(No corresponding Utah Grade 2 standard)</i>

(No corresponding Utah Grade 2 standard)

2.OA.1 Build and use models to solve one-step addition and subtraction story problems with sums and minuends less than or equal to 100, and two-step addition and subtraction story problems with sums and minuends less than or equal to 20. Add or remove story context to solve problem type situations with unknowns in all positions while attending to the meaning of the equal sign. (MP 2, 4)

2.OA.2 Use strategies and properties to add and subtract flexibly, accurately, and efficiently with sums and minuends less than or equal to 20. Know from memory all sums of two one-digit numbers. (MP 6)

2.OA.3 Describe and represent structures and patterns to determine if a group of up to 20 objects has an odd or even number of items by pairing them or counting by twos. (MP 7)

2.OA.4 Build and use models involving repeated addition to determine the total number of objects in rectangular arrays with up to 5 rows and up to 5 columns. Describe and represent the structures and patterns of the arrays. Make and evaluate conjectures about whether the sums are the same when adding by row or column. (MP 4, 7, 8)

2.MG.9 Build and use models to partition a rectangle into rows and columns of same-size squares and count to find the total number of squares. (MP 4)

2.MG.1 Select and use appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes to measure the length of objects to the nearest whole unit. (MP 5)

2.MG.2 Describe and represent the length of an object using two different units of measure. Describe the relationship of the two measurements and relate them to the units chosen. (MP 7)

2.MG.3 Construct, justify, and communicate clear and reasonable arguments when estimating lengths using inches, feet, centimeters, and meters. (MP 3)

2.MG.4 Measure with precision to determine how much longer one object is than another. Express the difference in length using a standard unit. (MP 6)

2.MG.5 Build and use a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2,... as a model to represent whole numbers as lengths from zero. Strategically use an open number line as a tool to model and solve whole-number addition and subtraction equations and word problems within 100. (MP 4, 5)

2.MG.6 Attend to precision when telling and writing time to the nearest five minutes. Add context to determine when to use a.m. and p.m., attending to reasonableness. (MP 2, 6)

2.MG.7 Add or remove context when solving problems involving dollar bills, quarters, dimes, nickels, and pennies. (MP 2)

2.MG.8 Ask questions to identify and describe shapes having specific attributes. Build and draw shapes that possess specified attributes. (MP 1)

2.MG.10 Describe and represent structures, patterns and relationships when partitioning two-dimensional shapes into two, three, or four equal shares; describe the shares using the words halves, thirds, a fourth of, quarters, etc. identical wholes need not have the same shape. (MP 7)

2.D.1 Determine a topic question and ask investigative questions that will lead to collecting, analyzing, and interpreting data within the context of classroom and grade. (MP 1)

2.D.2 Collect and organize data. Build data visualizations including bar graphs and pictographs with single-unit scales. Ask questions to consider a given data set about a classroom or grade level context, and organize that data using different variables. (MP 1, 4)

2.D.3 Analyze data sets and single-unit scale data visualizations using features such as titles, labels, and legends. Ask questions to make sense of the data. (MP 1)

2.D.4 Interpret data to answer investigative questions. Construct and justify arguments about the data. Make conjectures about the impact missing data may have on interpretation of the data. (MP 3, 8)

(No corresponding Utah Grade 2 standard)

<i>(No corresponding Utah Grade 2 standard)</i>
<i>(No corresponding Utah Grade 2 standard)</i>

Strong alignment
Partial alignment
Different grade level
Weak alignment
Utah only

Different Utah grade level
Minnesota only

Minnesota
2.3.7.2 Recognize patterns in counting. Skip count by 2s and 5s from any given number up to 120. (MP7)
2.3.5.1 Count collections of objects using groups of 10s and 100s to 1,000. Represent the counting strategy and the total using words, symbols and pictures. (MP1)
2.3.7.3 Use numeric expressions to describe a visual growing pattern. (MP8)
2.3.5.4 Recognize and describe the place value of numbers between 10 and 1,000 as a relationship of groups of tens, hundreds and thousands plus an amount of a single digit. Know that 100 is 10 tens and a thousand is 10 hundreds or 100 tens. (MP4, MP7)
2.3.5.2 Read, write, compare, order and represent whole numbers up to 1,000. Representations may include numerals, expanded notation, addition, subtraction, multiplication, words, pictures, tally marks, number lines and manipulatives such as bundles of sticks, ten frames and base 10 blocks. (MP4)
2.3.6.1 Compare two- and three-digit numbers based on meanings of the hundreds, tens and ones digits. (MP2, MP7)
2.3.5.7 Use a range of strategies and algorithms based on knowledge of place value and equality to flexibly add and subtract two-digit numbers. Strategies may include decomposition, expanded notation and partial sums and differences. Use place value and properties of operations to explain why strategies work. (MP1, MP7)
2.3.5.6 Use addition and subtraction, within 1,000, to solve contextual situations using concrete models or drawings based on place value, properties of operations and/or the relationship between addition and subtraction. Relate the strategy to a written method. (MP1, MP4)
2.3.5.3 Given a three-digit number, mentally find 10 more or 10 less and 100 more or 100 less than the number. Justify reasoning by referencing a model. (MP2, MP3)
2.3.5.9 Use landmarks of 10 to fluently add to 100 and subtract from 100. (MP7)
2.3.5.5 Estimate sums and differences of two-digit numbers. (MP1)

2.3.6.3 Make conjectures and justifications involving subtraction and addition with true/false and open number equations. (MP3)

2.3.6.2 Use number sentences involving addition, subtraction and unknowns to represent given situations. Use the relationship of addition and subtraction to find values for the unknowns that make the number sentences true. (MP4)

2.3.5.6 Use addition and subtraction, within 1,000, to solve contextual situations using concrete models or drawings based on place value, properties of operations and/or the relationship between addition and subtraction. Relate the strategy to a written method. (MP1, MP4)

2.3.5.8 Fluently add and subtract, within 20, using mental strategies that include incrementing, compensation or fact families. (MP7)

No corresponding Minnesota Grade 2 benchmark

2.3.7.1 Identify, create and describe simple number patterns involving repeated addition or subtraction, skip counting and arrays of objects such as counters or tiles. Use patterns to solve situations in various contexts. (MP7, MP8)

2.2.3.5 Partition a rectangle into rows and columns of same-size squares and count the total number. (MP8)

2.2.3.3 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks and measuring tapes. (MP5, MP6)

No corresponding Minnesota Grade 2 benchmark

2.2.3.1 Estimate lengths using units of inches, feet, centimeters and meters. (MP2, MP5)

2.2.3.2 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard-length unit. Relate addition and subtraction to length. (MP5)

2.2.3.4 Represent whole numbers as lengths from 0 on a number line with equally spaced points corresponding to the numbers 0, 1, 2, ...
Represent whole-number sums and differences, within 100, on a number line. (MP4, MP5)

2.2.3.6 Use addition and subtraction, within 100, to solve contextual situations involving lengths that are given in the same units using drawings (such as rulers) and equations with a symbol for the unknown number to represent the situation. (MP1, MP4)

No corresponding Minnesota Grade 2 benchmark

2.2.3.7 Identify pennies, nickels, dimes and quarters. Find the value of a group of coins and determine combinations of coins that equal a given amount, using \$ and ¢ symbols appropriately. (MP7)

2.2.4.1 Classify two- and three-dimensional figures according to the number and shape of faces and the number of sides, edges and vertices. (MP1, MP2)

2.2.4.2 Create a representation for basic twodimensional shapes such as squares, circles, triangles, rectangles, trapezoids and hexagons. (MP5, MP6)

2.3.5.10 Represent and solve contextual equal sharing situations where a whole number of items is shared equally among 2 or 4 groups. Name the fractional amount using the words "halves" and "fourths." Recognize that equal shares of identical wholes need not have the same shape. (MP3, MP7)

2.1.1.1 Notice and describe patterns in data-rich situations and create statistical investigative questions. (MP6, MP7)

2.1.1.3 Collect and use data to consider and decide what data will answer a question. Represent the data as drawings, picture graphs, dot plots (a.k.a. line graphs or line plots) and with technology.
Communicate observations. (MP3, MP5)

2.1.1.4 Make predictions using patterns from data visualizations. (MP7, MP8)

2.1.1.4 Make predictions using patterns from data visualizations. (MP7, MP8)

2.1.1.2 Determine what counts as data to answer a statistical investigative question. Recognize that people collect data to answer questions and that data can vary. (MP1)

2.1.2.1 Describe the difference between possible and likely. (MP1, MP6)
2.2.4.3 Describe the location of an object in relation to another object. (MP1, MP6)

64.0%
24.0%
0.0%
0.0%
12.0%
100.0%

2
4

Alignment
Partial
Minnesota only
Strong
Partial
Strong
Strong
Strong
Strong
Minnesota only

Different Utah grade level
Strong
Strong
Utah only
Partial
Strong
Strong
Utah only
Strong
Strong

Strong
Utah only
Strong
Strong
Partial
Strong
Strong
Partial
Partial
Minnesota only

Minnesota only

Different Utah grade
level

Commentary
MN covers skip counting by 2s and 5s (2.3.7.2, to 120) and counting by 10s and 100s to 1,000 (2.3.5.1), but does not consolidate skip counting by twos, fives, tens, and hundreds while counting within 1,000 as Utah does.
Describing a visual growing pattern with numeric expressions is a Minnesota patterning benchmark with no Utah Grade 2 counterpart.
Both establish three-digit place value (hundreds, tens, ones) and the bundling relationship that 100 is ten tens. The conceptual structure is the same.
Both read and represent three-digit numbers using numerals, word form, and expanded notation. However, MN's representation list is broader but fully includes Utah's expectations (comparing and ordering 3-digit numbers).
Both compare three-digit numbers using place value (meaning of the hundreds, tens, and ones digits). MN does not explicitly name the symbols $<$, $=$, $>$, but the comparison expectation matches.
Both flexibly add and subtract two-digit numbers using place-value strategies and justify/explain why the strategies work. Utah additionally specifies sums of up to four two-digit numbers.
Both add and subtract three-digit numbers (within 1,000) with concrete/pictorial models based on place value, including composing and decomposing tens and hundreds, and relate models to strategies.
Near-identical: both mentally find 10/100 more or less of a three-digit number and justify the reasoning. MN frames it as 10/100 more-or-less; Utah as adding/subtracting multiples of 10 or 100.
Estimating sums and differences of two-digit numbers is a standalone MN benchmark; Utah Grade 2 includes estimation only for length (2.MG.3), not for computation.

Reasoning about true/false and open number equations is retained in MN Grade 2; Utah addresses true/false equation reasoning in Grade 1 (1.OA.8), folding only the equal-sign meaning into 2.OA.1.

Together these cover Utah's expectation: **2.3.6.2** represents situations with number sentences and finds unknowns in all positions (the equal-sign meaning), and 2.3.5.6 solves addition/subtraction contextual problems. MN does not separate one-step (to 100) from two-step (to 20) as Utah does.

Both require fluent addition and subtraction within 20 using mental strategies. MN does not explicitly state 'know from memory all sums of two one-digit numbers,' but fact-family fluency within 20 carries the same intent.

Determining whether a group is odd or even (by pairing or counting by twos) is not addressed in the Minnesota Grade 2 benchmarks.

MN references repeated addition and arrays of objects as number patterns, but does not develop finding the total number of objects in a rectangular array (the foundation for multiplication) or the row/column conjecture that Utah requires.

Near-identical: partitioning a rectangle into rows and columns of same-size squares and counting the total.

Near-identical: selecting and using appropriate length tools (rulers, yardsticks, meter sticks, measuring tapes) to measure objects.

Measuring the same object in two different units and relating the two measurements (how unit size affects the count) is not addressed in the Minnesota Grade 2 benchmarks.

Both estimate lengths using inches, feet, centimeters, and meters. Utah additionally asks students to construct, justify, and communicate the reasoning behind the estimate.

Near-identical: measuring how much longer one object is than another and expressing the difference in a standard unit.

2.2.3.4 represents whole numbers as lengths on a number line and represents sums/differences within 100; **2.2.3.6** solves addition/subtraction word problems within 100. Together they match Utah's number-line modeling and problem solving.

Telling and writing time (to the nearest five minutes, with a.m./p.m.) is not addressed in the Minnesota Grade 2 benchmarks.

Both solve money problems involving coins (and the dollar/cent symbols). Utah explicitly includes dollar bills; MN focuses on coins and finding/combining values.

2.2.4.1 identifies/describes shapes by their attributes (faces, sides, edges, vertices) and **2.2.4.2** creates (builds/draws) shape representations, together matching the Utah standard.

MN shares the 'halves'/'fourths' language and the idea that equal shares of identical wholes need not be the same shape, but frames it as equal sharing of discrete items among 2 or 4 groups rather than partitioning shapes into 2, 3, or 4 equal shares (MN omits thirds).

Both center on creating/asking statistical investigative questions that lead to data work.

Both collect/organize data and build data visualizations including picture graphs. MN adds dot plots; Utah specifies bar graphs and pictographs with single-unit scales.

Both work analytically with data visualizations, but MN focuses on making predictions from patterns, while Utah focuses on analyzing visualizations via features such as titles, labels, and legends and questioning to make sense of them.

MN makes predictions from data, but does not require interpreting data to answer the investigative question, constructing/justifying arguments, or considering the impact of missing data, as Utah does.

Explicitly determining what counts as data and recognizing that data can vary is a distinct MN benchmark; Utah's data standards move directly from questioning to collecting and organizing data.

Probability (distinguishing possible from likely) is a Minnesota Grade 2 benchmark with no counterpart in the Utah Grade 2 standards.

Describing the relative location/position of objects is a Minnesota benchmark; Utah addresses relative position in Kindergarten rather than Grade 2.

Utah strand	Total Utah standards
#NBT standards	7
#OA standards	4
#MG standards	10
#D standards	4
Total	25

Strong	Partial	Weak	Different MN grade-level	Utah only
5	2	0	0	0
2	1	0	0	1
7	1	0	0	2
2	2	0	0	0
16	6	0	0	3

Different Utah grade level	Minnesota only
1	2
0	0
0	0
1	2
2	4

Domain	Topic
Operations & Algebraic Thinking	Basic fact fluency
Operations & Algebraic Thinking	Multiplication & division within 100
Operations & Algebraic Thinking	
Operations & Algebraic Thinking	
Operations & Algebraic Thinking	
Operations & Algebraic Thinking	
Operations & Algebraic Thinking	

Operations & Algebraic Thinking

Number & Operations in Base 10

Number & Operations in Base 10

Place Value

Number & Operations in Base 10

Estimation & rounding

Number & Operations in Base 10

Number & Operations in Base 10

Addition & subtraction within 1000 & place value

Number & Operations in Base 10

Number & Operations in Base 10

Number & Operations--Fractions	Fractions as numbers
Number & Operations--Fractions	
Number & Operations--Fractions	Equivalent & compare fractions
Number & Operations--Fractions	
Number & Operations--Fractions	Input-output rules
Measurement & Geometry	Area and perimeter
Measurement & Geometry	

Measurement & Geometry	
Measurement & Geometry	
Measurement & Geometry	
Measurement & Geometry	Time to the minute
Measurement & Geometry	Length, mass, volume, & time
Measurement & Geometry	
Measurement & Geometry	Money & finance
Measurement & Geometry	
Data Science	

Data Science	Data investigations
Data Science	
Data Science	
Data Science	Probability
Data Science	Patterns

of Utah Grade 3 Standards:
27

Utah

3.OA.6 Multiply and divide flexibly, accurately, and efficiently, with products, dividends, and divisors up to and including 100, and quotients up to and including 10. Know from memory all products of two one-digit numbers. (MP 6)

3.OA.1 Build and use models to find and interpret the products of whole numbers. (MP 4)

3.OA.2 Build and use models to find and interpret whole-number quotients. (MP 4)

3.OA.3 Solve multiplication and division story problems with products or dividends less than or equal to 100 and whole number quotients, using a variety of models. Add or remove context to solve situations involving equal groups, arrays, and measurement quantities. (MP 2, 4)

3.OA.4 Evaluate the unknown whole number in a multiplication or division equation. Represent division as an unknown-factor problem, and describe the relationship between multiplication and division. (MP 7)

3.OA.5 Make and assess conjectures about the properties of multiplication. Add context to make sense of these properties as strategies to multiply and divide with products and dividends less than or equal to 100. (MP 2, 8)

3.OA.7 Build and use models to solve two-step story problems involving whole numbers and having whole-number answers using the four operations, and attend to the reasonableness of answers. Remove context to represent situations as equations with a variable standing in for the unknown quantity. (MP 2, 4, 6)

3.NBT.4 Find the product of a one-digit whole number and a multiple of 10 (10–90). Make and test conjectures to generalize patterns that occur when multiplying by a multiple of ten. (MP 8)

3.NBT.1 Describe and represent place value structure by bundling ten 100s to make a thousand. Represent the amount of thousands, hundreds, tens, and ones in a 4-digit number, and describe the value of each. (MP 7)

3.NBT.2 Use models to round 2- or 3-digit whole numbers to the nearest 10 or 100 in and out of context. Determine if rounding is appropriate for a given situation and justify the reasoning. (MP 2, 3, 4)

3.NBT.3 Determine sums and differences of three-digit whole numbers using numerical strategies flexibly, accurately, and efficiently. Justify a chosen strategy with place value language. (MP 3, 6)

No matching Utah standard

No matching Utah standard

No matching Utah standard

3.NF.1 Describe and represent a fraction, $\frac{a}{b}$, as a numerator and a non-zero denominator, including unit fractions and fractions equal to whole numbers. Compose and decompose a fraction using unit fractions. Identify the meaning of the whole for a given context. (MP 7)

3.NF.2 Build and use number line models to represent fractions, using unit fractions as intervals. Connect number line models with area models to make sense of fractions. (MP 4)

3.NF.3 Build and use models to make sense of and generate equivalent fractions including whole numbers. Justify why equivalent fractions must reference the same whole to be equivalent. (MP 3, 4)

3.NF.4 Compare fractions with like numerators or like denominators, and justify the comparisons using models and/or by reasoning about their size. (MP 3, 4)

No matching Utah standard

3.MG.4 Recognize area and perimeter as attributes of plane figures. Build and use models to understand the concept of unit squares and area. Select and use tools strategically and appropriately to distinguish between linear (perimeter) and area measures. Use tiling to show that the area of a rectangle is the same as would be found by multiplying side lengths. (MP 4, 5)

3.MG.5 Build and use area models to represent the distributive property and relate the representations to the operations of addition and multiplication. (MP 4)

3.MG.6 Add and remove context to solve real-world and mathematical problems involving perimeters of simple polygons and rectangular areas. Make and evaluate conjectures about rectangles with the same perimeter and different areas or with the same area and different perimeters. Describe how area and perimeter are related. (MP 4, 8)

3.MG.7 Describe and represent shared attributes of shapes in a category, and recognize that the shared attributes define the larger category. Build models of quadrilaterals that do not belong to a given subcategory. (MP 4, 7)

3.MG.8 Attend to precision when partitioning shapes into parts with equal areas and expressing the area of each part as a unit fraction of the whole. (MP 6)

3.MG.2 Attend to precision when telling and writing time to the nearest minute. (MP 6)

3.MG.1 Make reasonable estimates about length, weight, and liquid volume. Select and use tools appropriately and strategically to find precise measurements. (MP 5, 6)

3.MG.3 Add or remove context to solve one-step story problems involving length, liquid volume, mass, and time. (MP 6)

No matching Utah standard

No matching Utah standard

3.D.1 Determine a topic question and ask investigative questions that will lead to collecting, analyzing, and interpreting data. Identify whether the question asked will result in quantitative or categorical data. (MP 1)

3.D.2 Select and use tools strategically to collect and organize data. Build data visualizations using scales of 2s, 5s, and 10s. Represent a data set with three or more categories. Ask questions to consider a given data set. Identify data as quantitative or categorical. (MP 1, 5)
3.D.3 Make and evaluate conjectures about benefits and drawbacks of different visualizations and scales used to analyze a set of data. (MP 6, 8)
3.D.4 Interpret data, including scaled visualizations, to answer investigative questions. Construct and justify arguments about the data. Identify patterns, trends, and outliers in the data. Identify ways to refine investigative questions, data collection, visualization, or analysis. (MP 3)
<i>No matching Utah standard</i>
<i>No matching Utah standard</i>

Strong alignment
Partial alignment—Utah deeper
Different grade level
Weak alignment
Utah only

Different Utah grade level
Minnesota only

Minnesota
3.3.5.7 Multiply and divide within 144, using strategies such as equal groups, repeated addition, the relationship between multiplication and division or properties of operations. Develop fluency with facts of 2s, 5s, 10s and square products. (MP7)
3.3.5.6 Represent and solve contextual situations involving multiplication, measurement division and partitive division with single-digit factors using visual models. (MP1, MP4)
3.3.5.7 Multiply and divide within 144, using strategies such as equal groups, repeated addition, the relationship between multiplication and division or properties of operations. Develop fluency with facts of 2s, 5s, 10s and square products. (MP7)
3.3.5.6 Represent and solve contextual situations involving multiplication, measurement division and partitive division with single-digit factors using visual models. (MP1, MP4)
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3.3.5.7 Multiply and divide within 144, using strategies such as equal groups, repeated addition, the relationship between multiplication and division or properties of operations. Develop fluency with facts of 2s, 5s, 10s and square products. (MP7)
3.3.6.3 Make conjectures and justifications using the commutative and associative properties of addition and multiplication with true/false and open number equations. (MP1, MP3)
3.3.6.2 Make conjectures and justifications about multiplication and division involving 0 and 1 with true/false and open number equations. (MP3)

3.3.6.1 Use relational thinking to find a missing value in an open number sentence with up to three-digit whole number addition and subtraction expressions. Determine if the equation is true or false. Justify your reasoning. (MP3)

3.3.7.1 Create, describe and apply single-operation input-output rules involving addition, subtraction and multiplication to solve situations in various contexts, including when x and y are 0. (MP7)

3.3.5.8 Multiply one-digit whole numbers by multiples of 10 and 100 using strategies such as decomposition of factors of ten, place value language, repeated addition and properties of operations. (MP7, MP8)

3.3.5.2 Recognize and describe the place value of numbers between 10 and 100,000 as a relationship of groups of ten, hundreds and thousands plus an amount of a single digit. Know that 10,000 is 100 hundreds, 1,000 is 10 hundreds or 100 tens. (MP7)

3.3.5.4 Estimate sums and differences up to 1,000 using strategies based on benchmarks and place value language. (MP2)

3.3.5.5 Use a range of strategies and algorithms based on knowledge of place value and equality to flexibly add and subtract within 1,000. Strategies may include decomposition, expanded notation and partial sums and differences. Explain how the strategies work using place value and the properties of operations. (MP1, MP7)

3.3.5.1 Given a value, mentally find 100 more or 100 less, 1,000 more or 1,000 less and 10,000 more or 10,000 less than the number. Justify reasoning by referencing a model. (MP2, MP3)

3.3.5.3 Compare and order whole numbers up to 100,000 justifying with place value language, number lines, and other tools using $>$, $=$ and $<$ symbols to record the results of comparisons. (MP3, MP4)

3.3.6.1 Use relational thinking to find a missing value in an open number sentence with up to three-digit whole number addition and subtraction expressions. Determine if the equation is true or false. Justify your reasoning. (MP3)

3.3.5.9 Partition a whole into halves, thirds, fourths and eighths. Wholes can be circles, rectangles and the distance between 0 and 1 on a number line. (MP4, MP6)

3.3.5.10 Use pictures and symbols to represent non-unit fractions up to 2 as sums of unit fractions using halves, fourths, thirds and eighths. (MP8)

3.3.5.9 Partition a whole into halves, thirds, fourths and eighths. Wholes can be circles, rectangles and the distance between 0 and 1 on a number line. (MP4, MP6)

3.3.5.11 Generate equivalent forms of one-half and 1 using fractions with denominators of 2, 4 and 8 and justify why these forms are equivalent using a visual model. (MP2, MP3)

3.3.5.12 Compare and order unit fractions using visual models and describe how the size of the fraction changes as the denominator changes. (MP1, MP7)

3.3.7.1 Create, describe and apply single-operation input-output rules involving addition, subtraction and multiplication to solve situations in various contexts, including when x and y are 0. (MP7)

3.2.3.3 Calculate the perimeter of a polygon with whole number side lengths. (MP5, MP6)

No matching benchmark — Closest MN PEs appear in later years:

4.3.6.2 Make conjectures and justifications using the distributive property to justify multi-digit multiplication with true/false and open number equations. (MP3)

5.3.5.1 Multiply two multi-digit numbers using an efficient strategy. Strategies include decomposing factors into factors, decomposing factors into sums or using an area model. Justify the chosen strategy using properties of operations and place value. (MP1, MP7)

3.2.3.3 Calculate the perimeter of a polygon with whole number side lengths. (MP5, MP6)
3.2.4.1 Create representations of regular and irregular polygons with a given number of sides, including triangles, quadrilaterals, pentagons, hexagons and octagons. (MP2, MP6)
3.3.5.9 Partition a whole into halves, thirds, fourths and eighths. Wholes can be circles, rectangles and the distance between 0 and 1 on a number line. (MP4, MP6)
<i>No matching benchmark — MN 2022 Grade 3 has no time standard and no comparable standard in other grades</i>
3.2.3.1 Measure lengths to the nearest fourth when measuring with standard units. (MP2, MP5, MP6)
3.2.3.2 Compare and contrast the relative sizes of measurement units within one system (such as inches, feet, and yards; centimeters and meters; grams and kilograms; ounces and pounds; cups and gallons; quarters and dollars). (MP5, MP6)
<i>No corresponding Minnesota Grade 3 benchmark</i>
3.2.3.4 Use addition and subtraction with whole numbers, within 100, to calculate change up to one dollar in several different ways, using \$ and ¢ symbols appropriately. (MP7, MP8)
3.3.5.13 Use addition and subtraction with estimated whole numbers to create short-term and long-term spending and saving goals based on planned and unplanned financial decisions. (MP2)
3.1.1.1 Notice and describe patterns in data-rich situations or given data sets. Ask statistical questions that can be answered with data. (MP7)
3.1.1.2 Describe how data can be collected, including from surveys, grouping of items and measurement, to answer a statistical investigative question. (MP7)

3.1.1.3 Collect and organize data to answer a statistical question using various tools and addressing missing or incomplete data. Represent data in a variety of ways including technology. (MP1, MP5)
3.1.1.5 Critically analyze data visualizations, including frequency tables, bar graphs, picture graphs or number line plots having a variety of scales, to support a claim and solve situations. (MP1, MP3)
3.1.1.5 Critically analyze data visualizations, including frequency tables, bar graphs, picture graphs or number line plots having a variety of scales, to support a claim and solve situations. (MP1, MP3)
3.1.1.4 Make predictions and recognize that the amount and source of the data impacts the accuracy of predictions. (MP4, MP8)
3.1.2.1 Describe outcomes of events as impossible, certain, likely, unlikely and equally likely. (MP1, MP4)
3.3.7.2 Create the next two terms and the previous term in a visual pattern, growing or shrinking, and justify reasoning. (MP1, MP7)

51.9%
29.6%
3.7%
7.4%
7.4%
100.0%

0
8

Alignment
Partial
Strong
Strong
Strong
Partial
Strong

Weak

Strong

Strong

Weak

Strong

Minnesota only

Minnesota only

Minnesota only

Strong
Strong
Partial
Partial
Minnesota only
Partial
Different grade level

Partial
Partial
Strong
Utah only
Partial
Utah only
Minnesota only
Minnesota only
Strong

Strong
Strong
Strong
Minnesota only
Minnesota only

Commentary

Both multiply and divide within ~ 100 –144 using strategies, but MN targets fluency only for the 2s, 5s, 10s, and square-product facts, while Utah expects knowing from memory all products of two one-digit numbers.

Both build/use visual models to make sense of multiplication (interpreting products). MN folds multiplication and division into one benchmark; Utah separates products (3.OA.1) from quotients (3.OA.2).

MN 3.3.5.6 explicitly includes both measurement and partitive division with visual models, directly matching Utah's expectation of finding and interpreting whole-number quotients with models.

Both solve multiplication/division story problems (equal groups, measurement/partitive) with models. MN uses single-digit factors (to 144); Utah caps products/dividends at 100.

MN captures the relationship between multiplication and division (3.3.5.7), but does not have a benchmark for evaluating the unknown in a multiplication/division equation generally (3.3.6.1 covers only addition/subtraction open sentences).

Together these cover making/assessing conjectures about the properties of multiplication: 3.3.6.3 (commutative and associative) and 3.3.6.2 (the zero and identity properties of 0 and 1).

MN has single-step contextual benchmarks for the operations (e.g., 3.3.5.6 for multiplication/division, 3.3.5.5 for addition/subtraction), but no benchmark for two-step problems using all four operations represented with a variable for the unknown.

Both multiply a one-digit number by a multiple of ten using place-value strategies. MN extends to multiples of 100; Utah limits to 10–90 and adds generalizing the pattern via conjectures.

Both develop place value structure including the bundling relationship for a thousand (MN: 1,000 is 10 hundreds). MN extends to 100,000; Utah focuses on the 4-digit number and the value of each digit.

MN has no discrete rounding benchmark; it folds rounding-type thinking into estimating sums and differences using benchmarks and place value (3.3.5.4). It does not require rounding to the nearest 10 or 100 or judging when rounding is appropriate.

Near-identical: flexibly adding and subtracting three-digit numbers (within 1,000) with place-value strategies and explaining/justifying why the strategy works.

Mentally finding 100/1,000/10,000 more or less is a distinct MN place-value benchmark; Utah addresses 10/100 more-or-less in Grade 2 (2.NBT.7) and does not extend it at Grade 3.

Comparing and ordering whole numbers (to 100,000) is a MN Grade 3 benchmark; Utah's whole-number comparison standard appears at Grade 2 (2.NBT.4), not Grade 3.

Finding the unknown in addition/subtraction open number sentences (and true/false reasoning) is retained in MN Grade 3; Utah's Grade 3 OA strand focuses unknown-equation work on multiplication and division (3.OA.4).

3.3.5.10 composes/decomposes fractions as sums of unit fractions and 3.3.5.9 partitions the whole, together matching Utah's definition of a fraction via unit fractions and the meaning of the whole.

MN partitions wholes that include the distance from 0 to 1 on a number line as well as circles and rectangles (area models), matching Utah's connection of number-line and area representations of fractions.

Both generate equivalent fractions and justify with a visual model, but MN limits this to equivalents of one-half and 1 (denominators 2, 4, 8), while Utah treats equivalent fractions more generally (including whole numbers) and the same-whole requirement.

MN compares unit fractions (the like-numerator case) and reasons about how denominator size changes the fraction, but does not address comparing fractions with like denominators, which Utah also requires.

Input-output (function) rules are a Minnesota patterns-and-relationships benchmark; Utah has no input-output/function-rule standard at Grade 3.

MN 3.2.3.3 covers perimeter (one of the two attributes), but MN Grade 3 has no benchmark developing area through unit squares and tiling or relating area to multiplying side lengths, which is the core of this Utah standard.

MN Grade 3 has no area concept and no area-model treatment of the distributive property (3.3.6.3 addresses only the commutative and associative properties, not the distributive property).

MN 3.2.3.3 covers calculating perimeter, but does not address rectangular area or the conjectures relating area and perimeter (same perimeter/different area, and vice versa) that Utah requires.

MN has students create polygons (including quadrilaterals) by number of sides, but does not develop categorizing shapes by shared attributes or reasoning about quadrilateral subcategories as Utah does.

Both partition shapes (circles, rectangles) into equal parts and connect each part to a unit fraction of the whole. MN names the specific partitions (halves, thirds, fourths, eighths).

Telling and writing time is not addressed in the Minnesota Grade 3 benchmarks (consistent with MN's K–3 standards, which do not include time).

MN addresses measuring length to the nearest fourth (3.2.3.1) and comparing units of length, mass, and volume (3.2.3.2), but is not organized around estimating length/weight/liquid volume and strategically selecting tools for precise measurement as Utah is.

Telling and writing time is not addressed in the Minnesota Grade 3 benchmarks (consistent with MN's K–3 standards, which do not include time).

Money/making-change problems appear in MN Grade 3; Utah addresses money in Grades 1–2 (1.MG.4, 2.MG.7) and has no money standard at Grade 3.

Financial-literacy goal setting (spending/saving) is a Minnesota benchmark with no counterpart in the Utah Grade 3 standards.

Both ask statistical investigative questions that lead to data work (3.1.1.1) and consider how data is collected (3.1.1.2). MN does not include identifying whether a question yields quantitative or categorical data.

Both select tools to collect/organize data and represent it in a variety of ways. MN adds addressing missing/incomplete data; Utah adds scaled visualizations (2s/5s/10s) and identifying data as quantitative or categorical.

Both critically analyze data visualizations (bar graphs, picture graphs) with a variety of scales. MN frames it as supporting a claim/solving situations; Utah adds conjectures about the benefits and drawbacks of visualizations and scales.

MN interprets visualizations to support a claim/solve situations (3.1.1.5) and reasons about data quality and predictions (3.1.1.4). Utah additionally calls for identifying outliers and refining the investigative cycle.

Probability (describing event likelihood) is a Minnesota Grade 3 benchmark with no counterpart in the Utah Grade 3 standards.

Extending growing/shrinking visual patterns is a Minnesota patterning benchmark with no Utah Grade 3 counterpart.

Utah strand	Total Utah standards	Strong
#OA standards	7	4
#NBT standards	4	3
#NF standards	4	2
#MG standards	8	1
#D standards	4	4
Total	27	14

Partial	Weak	Different MN grade-level	Utah only	Different Utah grade level
2	1	0	0	0
0	1	0	0	0
2	0	0	0	0
4	0	1	2	0
0	0	0	0	0
8	2	1	2	0

MN only

0

3

1

2

2

8

Domain	Topic
Operations & Algebraic Thinking	Solve multiplication problems
Operations & Algebraic Thinking	
Operations & Algebraic Thinking	Solve problems using the four operations
Operations & Algebraic Thinking	
Operations & Algebraic Thinking	Factors and multiples
Operations & Algebraic Thinking	Generate & describe patterns
Number & Operations in Base 10	Place value to millions
Number & Operations in Base 10	
Number & Operations in Base 10	

Number & Operations in Base 10	
Number & Operations in Base 10	Add and subtract whole numbers
Number & Operations in Base 10	Multi-digit multiplication / division
Number & Operations in Base 10	
Number & Operations--Fractions	Equivalent fractions / composing & decomposing fractions
Number & Operations--Fractions	
Number & Operations--Fractions	
Number & Operations--Fractions	Add/subtract fractions with like denominators
Number & Operations--Fractions	Multiply fraction by whole number
Number & Operations--Fractions	

Number & Operations--Fractions	Decimals to hundredths
Number & Operations--Fractions	
Measurement & Geometry	Area & perimeter
Measurement & Geometry	Angles & lines
Measurement & Geometry	
Measurement & Geometry	
Measurement & Geometry	
Measurement & Geometry	

Data Science	Data investigations
Data Science	
Data Science	
Data Science	

of Utah Grade 1 Standards:
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Utah
4.OA.1 Build and use models to visualize a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations. (MP 4, 7)
4.OA.2 Solve story problems involving multiplicative comparison by building and using models, including drawings and equations with a symbol for the unknown number. Make and evaluate conjectures about the difference between multiplicative and additive comparison. (MP 4, 8)
4.OA.3 Use and name properties of operations to justify strategies used to solve problems involving the four operations. (MP 3)
4.OA.4 Build and use models to solve multi-step story problems involving whole numbers using the four operations, including problems in which remainders must be interpreted. Attend to the reasonableness of answers. Remove context to represent situations as equations with a variable standing in for the unknown quantity. (MP 2, 4, 6)
4.OA.5 Find factors and multiples of whole numbers. Make and test conjectures about the relationship between any whole number and its factors. (MP 8)
4.OA.6 Generate a number or shape pattern based on a given rule. Describe and represent the features of the pattern that are not explicitly stated in the rule itself. Make and test conjectures about how the pattern will continue. (MP 7, 8)
4.NBT.1 Describe the structure of place value by explaining how the value of one place represents ten times more than the place to its right. Represent those patterns with a statement of multiplicative comparison. (MP 7)
4.NBT.2 Read multi-digit whole numbers up to and including 1,000,000. Represent multi-digit whole numbers using numerals and expanded form. (MP 7)
4.NBT.3 Compare two whole numbers with up to 6 digits and represent the relationship between two numbers using comparison symbols $<$, $=$, and $>$. (MP 7)

4.NBT.4 Apply knowledge of place value structure to round whole numbers up to and including six digits in and out of context. Justify whether rounding is appropriate in a given situation. (MP 2, 3)

4.NBT.5 Use efficient algorithms to determine sums and differences of multi-digit whole numbers in real-world contexts and equations flexibly, accurately, and efficiently. Determine if sums and differences are reasonable. (MP 2, 6)

4.NBT.6 Develop visual and numerical models based on place value and/or the properties of multiplication to multiply a whole number of up to four digits by a one-digit whole number, and to multiply two two-digit numbers. (MP 4)

4.NBT.7 Develop visual and numerical models based on place value and/or the relationship between multiplication and division to divide up to a three-digit number by a one-digit number. (MP 4)

4.NF.1 Compose and decompose fractions, mixed numbers and fractions greater than one by building and using models. Represent fractions as the sum of fractions with the same denominator in more than one way. Justify the equivalence with equations. Recognize that a value can be expressed as a fraction greater than one and an equivalent mixed number. (MP 3, 4)

4.NF.2 Recognize and generate equivalent fractions, connecting numerical strategies to visual fraction models. Make and test conjectures about what happens to a fraction when the numerator and the denominator are multiplied by the same number. (MP 8)

4.NF.3 Compare and order fractions with different numerators and denominators. Construct and communicate arguments that justify the order of the fractions. (MP 3)

4.NF.4 Build and use models to add and subtract fractions with like denominators, including mixed numbers. Solve problems involving addition and subtraction of fractions in real world contexts and equations. (MP 2, 4)

4.NF.5 Build and use models to extend understanding of multiplication to fractions. Connect repeated addition to multiplication when multiplying a fraction by a whole number. Multiply a fraction by a whole number using numerical strategies. Solve problems involving multiplying a fraction by a whole number in real world contexts. (MP 2, 4)

4.NF.6 Build and use models to express a fraction with denominator of 10 as an equivalent fraction with denominator of 100, and use this technique to add two fractions with respective denominators of 10 and 100. (MP 4)

4.NF.7 Connect decimal notation to fractions with denominators of 10 or 100. Construct clear and reasonable arguments to justify how the decimal notation and fraction are equivalent. (MP 3)

4.NF.8 Compare two decimal numbers to the hundredths place by reasoning about their size. Justify the comparison. Represent the relationship between two numbers using comparison symbols $<$, $=$, and $>$. (MP 3, 7)

4.MG.1 Add and remove context to solve real-world and mathematical problems involving the area and perimeter of rectangles and rectilinear shapes. Build and use models to make sense of the area and perimeter formulas for rectangles. (MP 2, 4)

4.MG.2 Draw points, lines, line segments, rays, angles (right, acute, and obtuse), and perpendicular and parallel lines. Describe these structures and their relationships within two-dimensional figures. (MP 7)

4.MG.3 Describe angles as geometric figures formed by two rays with a common endpoint. Understand that an angle is measured with reference to a circle. Describe the relationship between an angle's measure and the fraction of the circular arc that it represents. (MP 7)

4.MG.4 Attend to precision and reasonableness when measuring or sketching angles in whole-number degrees using a protractor. (MP 6)

4.MG.5 Understand and demonstrate the additive nature of angle measures. Find and justify unknown angles on a diagram using addition and subtraction. (MP 3)

4.MG.6 Compare and classify two-dimensional figures including quadrilaterals and triangles based on the presence or absence of parallel lines, perpendicular lines, and angles of specified sizes. Justify and evaluate the classification. (MP 3)

4.D.1 Determine a topic question and ask investigative questions that will lead to collecting, analyzing, and interpreting data with up to two variables. Make conjectures about the impact of the sampling process and sample size on results. (MP 1, 8)

4.D.2 Select and use tools strategically to collect and organize data. Build data visualizations. Ask questions to consider a given data set with up to two variables. (MP 1, 5)

4.D.3 Analyze data and data visualizations. Evaluate conjectures about how different sampling processes or data visualizations might influence interpretation of data. (MP 6, 8)

4.D.4 Interpret data and data visualizations to answer investigative questions. Construct and justify arguments about the data. Discuss ways that the sampling process and sample size may affect how people draw conclusions from data. Identify ways to refine investigative questions, data collection, visualization, or analysis. (MP 3)

Strong alignment

Partial alignment

Different grade level

Weak alignment

Utah only--No MN analog

Different Utah grade level

Minnesota only

Minnesota
4.3.7.2 Use words to write a rule for multiplicative patterns and solve contextual situations. Compare and contrast patterns or rules that are additive and multiplicative, using a variety of strategies including tables, drawings and algebraic equations with a symbol for the unknown number to represent the situation. (MP7, MP8)
4.3.7.2 Use words to write a rule for multiplicative patterns and solve contextual situations. Compare and contrast patterns or rules that are additive and multiplicative, using a variety of strategies including tables, drawings and algebraic equations with a symbol for the unknown number to represent the situation. (MP7, MP8)
4.3.6.2 Make conjectures and justifications using the distributive property to justify multi-digit multiplication with true/false and open number equations. (MP3)
4.3.5.5 Fluently multiply two numbers from 0 to 12 using flexible strategies based on the associative, commutative and distributive properties of multiplication. (MP6, MP7)
4.3.5.9 Solve multi-step contextual situations requiring the use of addition, subtraction and multiplication of multi-digit whole numbers. Use various strategies, including the relationship between operations, the use of technology and the context of the situation to assess the reasonableness of results. (MP4, MP7)
4.3.5.8 Solve contextual situations using division with dividends up to the thousands place and using one-digit divisors. Strategies may include using visual models, partial quotients, the commutative, associative and distributive properties and repeated subtraction. (MP7, MP8)
<i>No matching MN benchmark</i>
4.3.7.3 Generate a number or shape pattern that follows a given descriptive rule. Identify and explain apparent features of the pattern that were not explicit in the rule itself. (MP1, MP3)
4.3.5.1 Recognize that in a multi-digit whole number, a digit in one place represents 10 times what it represents in the place to its right. (MP7)
4.3.5.2 Compare and order whole numbers from 0 to 1,000,000 with place value understanding, number lines and other tools using $>$, $=$ and $<$ symbols to record the results of comparisons. (MP4)
4.3.5.2 Compare and order whole numbers from 0 to 1,000,000 with place value understanding, number lines and other tools using $>$, $=$ and $<$ symbols to record the results of comparisons. (MP4)

4.3.5.3 Estimate sums and differences, within 1,000,000, using strategies based on place value, approximation and properties of operations. (MP3)

4.3.5.9 Solve multi-step contextual situations requiring the use of addition, subtraction and multiplication of multi-digit whole numbers... to assess the reasonableness of results. (MP4, MP7)

4.3.5.3 Estimate sums and differences, within 1,000,000, using strategies based on place value, approximation and properties of operations. (MP3)

4.3.5.7 Flexibly decompose numbers into addends or factors to multiply two two-digit numbers and multiply a one-digit number, by up to a four-digit number. Justify the strategy using equations, rectangular arrays and area models. (MP2, MP7)

4.3.5.8 Solve contextual situations using division with dividends up to the thousands place and using one-digit divisors. Strategies may include using visual models, partial quotients, the commutative, associative and distributive properties and repeated subtraction. (MP7, MP8)

4.3.5.10 Read, write, represent and plot on a number line fractional values between 0 and 3, including mixed numbers and fractions greater than 1 with denominators of 2, 3, 4, 5, 6, 8, 10 and 12. Express whole numbers as fractions and recognize fractions that are equivalent to whole numbers. (MP6)

4.3.5.12 Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions. (MP3)

4.3.5.11 Explain why a fraction a/b is equivalent to the product $a \times 1/b$ using visual models and language. (MP2)

4.3.5.13 Compare and order fractions between 0 and 3 and justify reasoning using pictures, position on a number line and selecting, when appropriate, among strategies such as using a common numerator, referencing a benchmark and using a common denominator. (MP3)

4.3.5.16 Use visual models to add and subtract fractions with denominators of 2, 4 and 8 with results up to 2. (MP4)

4.3.5.11 Explain why a fraction a/b is equivalent to the product $a \times 1/b$ using visual models and language. (MP2)

(none)

4.3.5.14 Recognize the relationship between decimals and fractions. Read and write decimals and fractions in both decimal and fraction notations using words, symbols and expanded form. Recall the fraction and decimal equivalent forms of one-half, one-quarter and three-quarters. (MP7)

4.3.5.15 Compare and order decimal values to the hundredths and justify using place value language, a number line and models such as dimes, pennies, 10 x 10 grids and base 10 blocks. Use place value concepts to name and model equivalent forms of decimal values. (MP4)

4.2.3.4 Determine the perimeter and area of two-dimensional figures and label with appropriate units. (MP2, MP6)

4.2.3.6 Explain why the area of a rectangle can be calculated by multiplying the length by the width and use the formula $A = l \times w$ to calculate the area of rectangles with whole number side lengths. (MP3)

4.2.3.5 Find the areas of geometric figures that can be decomposed into rectangular shapes using tools like dot or grid paper. Label area measurements using square units. (MP2)

4.2.4.1 Draw points, line segments, rays, lines, angles and perpendicular and parallel lines. Identify these in two-dimensional figures. (MP5)

4.2.3.1 Classify angles as acute, right and obtuse by estimation, comparison with a right angle and by measurement. (MP6)

4.2.3.3 Measure angles with a protractor. (MP5)

4.2.3.3 Measure angles with a protractor. (MP5)

(none)

4.2.4.3 Sort and classify quadrilaterals in a hierarchy, including squares, rectangles, trapezoids, rhombuses, parallelograms and kites. Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. (MP1, MP6)

4.2.4.2 Create representations of triangles given the relationships among the sides (scalene, isosceles, equilateral) and the angles (acute, right, obtuse). (MP1, MP6)

4.1.1.1 Notice and describe patterns in data-rich situations or two given related data sets that are descriptive and comparative. Ask meaningful statistical questions that can be answered with data. (MP3, MP7)
4.1.1.3 Make predictions and recognize that how the data was collected impacts the reliability of predictions. (MP1, MP8)
4.1.1.2 Collect and organize data to answer a statistical question, analyze variability and address missing, incomplete and bias in data. Represent data in a variety of ways, including technology. (MP1, MP5)
4.1.1.4 Critically analyze data visualizations, including tables, double bar graphs, timelines, line plots or spreadsheets to support a claim and solve contextual situations. (MP3, MP7)
4.1.1.3 Make predictions and recognize that how the data was collected impacts the reliability of predictions. (MP1, MP8)
4.1.1.4 Critically analyze data visualizations, including tables, double bar graphs, timelines, line plots or spreadsheets to support a claim and solve contextual situations. (MP3, MP7)
4.1.1.3 Make predictions and recognize that how the data was collected impacts the reliability of predictions. (MP1, MP8)

45.2%

29.0%

0.0%

16.1%

9.7%

100.0%

0

0

Alignment	Commentary
Weak	MN has no benchmark establishing multiplication as a comparison; 4.3.7.2 only touches the additive-vs-multiplicative contrast.
Partial	MN captures the additive/multiplicative contrast and a symbol for the unknown, but not multiplicative-comparison story problems.
Partial	MN applies properties only to multiplication; Utah is general across all four operations.
Partial	MN's multi-step benchmark omits division (handled separately in 4.3.5.8) and never mentions interpreting remainders or a variable for the unknown.
Utah only	Factors and multiples are not addressed in MN Grade 4.
Strong	Near-verbatim alignment.
Strong	Utah adds explicit 'multiplicative comparison' framing, but the place-value content matches.
Weak	Same 1,000,000 range, but MN has no benchmark for reading/writing numbers in expanded form.
Strong	Directly aligned.

Weak	MN has no explicit rounding benchmark; only approximation/estimation is present.
Partial	MN has no stand alone add/subtract fluency or standard-algorithm benchmark at Grade 4; the operations appear embedded in contextual and estimation benchmarks.
Strong	Identical scope (4-digit x 1-digit and 2-digit x 2-digit).
Strong	Both use one-digit divisors and models; MN extends to four-digit dividends.
Partial	MN covers representing mixed numbers and fractions > 1 , but not decomposing a fraction into a sum of same-denominator fractions in more than one way.
Strong	4.3.5.12 is the multiply-numerator-and-denominator-by-the-same-number idea expressed directly.
Strong	Directly aligned.
Partial	MN restricts to denominators 2/4/8 with results up to 2 and omits mixed numbers and real-world problem solving.
Weak	4.3.5.11 only frames a fraction as a product; MN has no benchmark for multiplying a fraction by a whole number to solve problems.
Utah only	MN Grade 4 does not address tenths-to-hundredths equivalence or adding tenths and hundredths.

Strong	Both center on the decimal-fraction connection.
Strong	Directly aligned.
Strong	MN covers area, perimeter, the rectangle-area formula, and rectilinear (decomposed) figures.
Strong	Directly aligned (angle types come from 4.2.3.1).
Weak	MN measures angles but never develops the conceptual 'angle as a fraction of a circle' foundation.
Strong	Same skill; Utah adds the sketching/precision emphasis.
Utah only	MN Grade 4 has no benchmark on additive angle measure or solving for unknown angles.
Strong	MN classifies both quadrilaterals (with hierarchy) and triangles.

Partial	MN poses statistical questions and links data collection to reliability, but does not frame 'sample size' or 'up to two variables' explicitly.
Strong	Both collect, organize, and represent/visualize data.
Partial	MN analyzes visualizations and data-collection reliability, but does not explicitly compare sampling processes.
Partial	Strong on interpreting/arguing from visualizations; weaker on the sample-size and refine-the-investigation cycle Utah emphasizes.

Utah strand	Total Utah standards	Strong
#OA standards	6	1
#NBT standards	7	4
#NF standards	8	4
#MG standards	6	4
#D standards	4	1
Total	31	14

Partial	Weak	Different MN grade- level	Utah only	Different Utah grade level	MN only
3	1	0	1	0	0
1	2	0	0	0	0
2	1	0	1	0	0
0	1	0	1	0	0
3	0	0	0	0	0
9	5	0	3	0	0

Domain	Topic
Operations & Algebraic Thinking	Prime & composite numbers
Operations & Algebraic Thinking	Properties of operations
Operations & Algebraic Thinking	Generate and describe patterns
Number & Operations in Base 10	Place value and decimals
Number & Operations in Base 10	
Number & Operations in Base 10	
Number & Operations in Base 10	
Number & Operations in Base 10	
Number & Operations in Base 10	Rounding & estimating

Number & Operations in Base 10	Whole number multiplication and division
Number & Operations in Base 10	
Number & Operations in Base 10	Operations with decimals
Number & Operations in Base 10	
Number & Operations in Base 10	
Number & Operations-- Fractions	

Number & Operations-- Fractions	
Number & Operations-- Fractions	Operations with fractions
Number & Operations-- Fractions	
Number & Operations-- Fractions	
Number & Operations-- Fractions	
Measurement & Geometry	Three-dimensional figures and volume
Measurement & Geometry	
Measurement & Geometry	

Measurement & Geometry	Coordinate plane
Measurement & Geometry	Quadrilaterals
Data Science	Data investigations
Data Science	
Data Science	
Data Science	

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Utah
5.OA.1 Use structures, patterns, and relationships to determine whether a given whole number between 1 and 100 is prime or composite. (MP 7)
5.OA.2 Add context to make sense of numerical expressions involving multiple operations with parentheses, brackets, or braces. Write and/or evaluate numerical expressions. (SMP 2)
5.OA.3 Generate two numerical patterns using two given rules. Describe and represent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns and graph the ordered pairs on a coordinate plane. (MP 7)
5.NBT.1 Describe the structure of place value by explaining that the value of one place represents ten times as much as the place to its right and $\frac{1}{10}$ of the place to its left. Represent those patterns with a statement of multiplicative comparison. (MP 7)
5.NBT.2 Represent powers of 10 with whole-number exponents. Make and test conjectures about a decimal's placement when multiplying by powers of 10. (MP 7, 8)
5.NBT.3 Describe and represent decimals to the thousandths place using models, base-ten numerals, number names, and expanded forms. (MP 7)
5.NBT.4 Compare two decimal numbers and represent the relationship between the two numbers using comparison symbols $<$, $=$, and $>$. (MP 7)
<i>No matching UT standard</i>
5.NBT.5 Apply knowledge of place value structure to round decimal numbers to the nearest whole, tenth, or hundredth in and out of context. Determine and justify situations where rounding is appropriate. (MP 2, 3)

5.NBT.6 Use efficient numerical strategies based on properties of multiplication and/or place value to multiply a whole number of up to four digits by a one digit whole number and to multiply two two-digit numbers flexibly, accurately, and efficiently in real-world contexts and equations. Determine if products are reasonable. (MP 2, 6)

5.NBT.7 Use efficient numerical strategies based on properties of multiplication and/or place value to divide up to a four digit number by a one digit number. Communicate the meaning of the remainder in real world contexts. (MP 2, 3)

5.NBT.8 Build and use models to find sums and differences of decimals to hundredths in real-world contexts and equations. Use the models to represent and describe the structure of adding tenths with tenths and hundredths with hundredths. (MP 2, 4, 7)

5.NBT.9 Build and use models to find products of decimals to hundredths in real-world contexts and equations. (MP 2, 4)

5.NBT.10 Build and use models to find quotients of decimals limited to a whole number dividend with a decimal divisor of tenths between 0 and 1, or a decimal dividend with a single-digit whole number divisor in real-world contexts and equations. (MP 2, 4)

5.NF.1 Add and subtract fractions with unlike denominators with precision. Solve problems involving addition and subtraction with unlike denominators in real world contexts and equations. Determine if the solution is reasonable. (MP 2, 6)

5.NF.2 Interpret a fraction as division (a/b is the same as $a \div b$). Solve problems involving division in real world contexts using visual models and/or equations. (MP 2, 4)

5.NF.3 Build and use models, including area models, to multiply fractions, whole numbers, and mixed numbers. Connect the properties of multiplication to multiplying fractions. Solve problems involving multiplication of fractions and mixed numbers using real world contexts and equations (fraction by a fraction, fraction by a mixed number, mixed number by mixed number). (MP 2, 4)

5.NF.4 Interpret multiplication as scaling. Construct, justify, and communicate clear and reasonable arguments about the size of the resulting product when multiplying a given number by a fraction greater than one, a fraction less than one, a fraction equal to one. Make and test conjectures about the size of the product based on the size of the factors without computing. (MP 3, 8)

5.NF.5 Build and use models that extend understanding of division to divide unit fractions by whole numbers and whole numbers by unit fractions. Solve problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions using real world contexts and equations. Make conjectures about the relationship between multiplication and division when operating with fractions and evaluate the results. (MP 2, 4, 8)

5.MG.1 Recognize volume as an attribute of solid figures. Build and use models to understand the concept of volume. Demonstrate that unit cubes can be packed into rectangular prisms. Determine volume by counting unit cubes and expressing the volume in cubic units. (MP 4)

5.MG.2 Build and use models to make sense of and apply the formulas for finding the volume of right rectangular prisms. Add or remove context to solve real-world problems involving the volume of a right rectangular prisms with whole-number side lengths. (MP 2, 4)

No matching UT standard

5.MG.3 Build and use a model of the coordinate plane to represent real-world problems. Understand the numbers in the coordinate pair indicate distance from the origin in the direction of the horizontal and vertical axes. Graph points in the first quadrant of the coordinate plane Interpret coordinate values based on a given context. (MP 2, 4)

5.MG.4 Describe and represent structure, patterns, and relationships when classifying quadrilaterals in a hierarchy based on attributes. (MP 7)

5.D.1 Determine a topic question and ask investigative questions that will lead to collecting, analyzing, and interpreting data with up to four variables. Ask questions to identify potential sources of bias in data collection, representation, and interpretation. (MP 1)

5.D.2 Select and use tools strategically, to collect and organize data. Build data visualizations. Ask questions to consider a given data set with up to four variables. Make conjectures about potential sampling approaches and how those approaches impact results. (MP 1, 5, 8)

5.D.3 Analyze data sets with up to four variables and multiple data visualizations Evaluate sampling approaches and data visualizations to identify potential data bias. (MP 6, 8)

5.D.4 Interpret data and data visualizations to answer investigative questions while considering the impact of data bias, choice of data visualizations, and sample size. Construct and justify arguments about the data based on visible features of distribution such as center and range. Identify ways to refine investigative questions, data collection, visualization, or analysis. (MP 3)

Strong alignment

Partial alignment

Different grade level

Weak alignment

Utah only—No MN analog

Different Utah grade level

Minnesota only

Minnesota
<i>No matching grade 5 MN benchmark</i>
5.3.6.2 Make conjectures and justifications about numerical expressions involving parentheses and the four operations using the properties of operations, properties of algebra, decomposition and composition to generate equivalent numerical expressions. (MP3) 5.3.6.1 Use relational thinking to find a missing value in an open number sentence with addition and subtraction of fractions and decimal expressions. Determine if the equation is true or false and justify the reasoning. (MP3)
5.3.7.1 Use a rule or table to represent ordered pairs of positive integers and graph these ordered pairs on a coordinate system. (MP4) 5.3.7.2 Identify and explain apparent relationships between two patterns from given rules, using tables or ordered pairs on a coordinate system. (MP7, MP8)
5.3.5.7 Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and $\frac{1}{10}$ of what it represents in the place to its left. (MP2, MP7)
5.3.5.6 Given a value, mentally find 0.1 more or 0.1 less, 0.01 more or 0.01 less and 0.001 more or 0.001 less than the number. Justify reasoning by referencing a visual model. (MP2, MP3)
5.3.5.8 Recognize and flexibly generate equivalences between fractions and decimals to the thousandths place and justify using visual models, place value language and symbols. (MP3, MP7)
5.3.5.9 Compare and order decimal values to the thousandths. Justify using place value language and visual models. (MP3, MP4)
5.3.5.12 Estimate sums and differences of decimals. (MP2)
<i>No matching MN benchmark</i>

5.3.5.1 Multiply two multi-digit numbers using an efficient strategy. Strategies include decomposing factors into factors, decomposing factors into sums or using an area model. Justify the chosen strategy using properties of operations and place value. (MP1, MP7)

5.3.5.4 Solve multi-step contextual situations requiring addition, subtraction, multiplication and division of multi-digit whole numbers. Use various strategies including the inverse relationships between operations, the use of technology and the context of the situation to assess the reasonableness of results. (MP4)

5.3.5.2 (divide multi-digit by 1- or 2-digit divisor; quotient as remainder/fraction/mixed/decimal);

5.3.5.3 Consider the context of a problem involving division to select the most useful form of the quotient and the remainder. (MP2)

5.3.5.13 Solve contextual situations using addition and subtraction of positive rational numbers represented as fractions (including mixed numbers) or decimals using visual models, equations and properties of operations. (MP4)

5.3.5.12 Estimate sums and differences of decimals. (MP2)

No matching MN benchmark

No matching MN benchmark

5.3.5.11 Fluently add and subtract fractions with unlike denominators (including mixed numbers) and justify using equivalent fractions, visual models and the number line. (MP3)

5.3.5.13 Solve contextual situations using addition and subtraction of positive rational numbers represented as fractions (including mixed numbers) or decimals using visual models, equations and properties of operations. (MP4)

5.3.5.10 Estimate sums and differences of fractions and mixed numbers to the nearest half. Justify reasoning using benchmarks. (MP3)

5.3.5.2 Divide multi-digit numbers by a one-digit or two-digit divisor using efficient and generalizable procedures based on knowledge of place value and the properties of operations that may include partial quotients and standard algorithms. Recognize that quotients can be represented in a variety of ways, including a whole number with a remainder, a fraction, a mixed number or a decimal. (MP7)

5.3.5.14 Represent multiplication of a whole number of fractional groups, $n \times (a/b)$, using visual models, including a number line, and explain how the picture shows the product. (MP3)

5.3.7.4 Use ratio tables with whole numbers to solve situations with additive and multiplicative reasoning. Interpret multiplication as scaling. (MP2)

5.3.5.16 Represent contextual measurement situations using division of the form $n \div (a/b)$ where n is the total and a/b is the amount per group. Use a visual model and explain how the picture shows the number of groups. (MP3)

5.2.3.3 Use unit cubes to measure volume. Describe a unit cube as a cube with side length 1 unit that is said to have "one cubic unit" of volume and can be used to measure volume. (MP5, MP6)

5.2.3.4 Use various strategies to measure the volume and surface area of three-dimensional shapes made of a collection of unit cubes. (MP5, MP6)

5.2.3.5 Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes. Show that the volume is the same by unit cubes as by multiplying the edge lengths ($l \times w \times h$) or by multiplying the height by the area of the base. (MP3, MP8)

5.2.4.1 Classify and describe prisms and pyramids by their defining attributes and the number of edges, faces, vertices and bases. (MP1, MP6)

5.3.7.3 Represent contextual situations by graphing whole and half number points in the first quadrant of the coordinate plane. Interpret coordinate values of points in the context of the situation. (MP4) 5.3.7.1 Use a rule or table to represent ordered pairs of positive integers and graph these ordered pairs on a coordinate system. (MP4)
<i>No matching MN benchmark</i>
5.1.1.1 Notice and describe patterns in data-rich situations or given related data sets that are descriptive and comparative. Ask meaningful statistical questions that can be answered with data. (MP7)
5.1.1.3 Collect and organize data to answer statistical questions and analyze measures of center (mean and median) and variability (range). Represent data in a variety of ways, including technology. (MP5)
5.1.1.5 Compare and contrast different data displays to determine how the visualizations impact analysis and interpretation. (MP3, MP8)
5.1.1.4 Critically analyze data visualizations using measures of center and variability, including but not limited to double-bar graphs, line graphs and line plots to support a claim and solve situations. (MP3, MP7)

34.6%
38.5%
3.8%
7.7%
15.4%
100.0%
0
0

Alignment
Different grade level
Partial
Strong
Strong
Weak
Partial
Strong
MN only
Utah only

Strong
Strong
Partial
Utah only
Utah only
Strong

Weak
Partial
Partial
Partial
Strong
Strong
MN only

Strong
Utah only
Partial
Partial
Partial
Partial

Commentary
MN has no prime/composite benchmark at Grade 5. The closest (partial) match is a 7th grade benchmark: 6.3.5.4 Factor whole numbers. Express a whole number as a product of prime factors with exponents. Identify a prime number as a whole number greater than one whose only factors are one and itself. (MP7, MP8)
MN emphasizes equivalence and relational thinking; UT emphasizes writing/evaluating and adding context. Brackets/braces not in MN.
Together MN covers the two-rule relationship and graphing ordered pairs.
Near-identical; UT adds the explicit 'multiplicative comparison' framing
MN touches place-value movement of decimals but has no exponent/powers-of-10 benchmark and no 'multiply by powers of 10.'
Both reach thousandths with multiple representations, but UT requires number names/expanded form; MN frames it as fraction-decimal equivalence.
MN matches and extends to ordering.
MN has no decimal-rounding benchmark; estimation is adjacent but conceptually distinct.

Strategy and reasonableness both covered; MN is not bounded to specific digit limits.

MN matches and extends to two-digit divisors.

Decimal add/subtract with models is shared; UT's 'tenths with tenths / hundredths with hundredths' place-value structure is not explicit in MN.

MN has no decimal multiplication benchmark at Grade 5.

MN has no decimal division benchmark at Grade 5.

Fluency, context, and reasonableness all covered.

MN notes a quotient can be a fraction, but has no benchmark explicitly interpreting a/b as $a \div b$.

MN covers whole-number $\times$ fraction with models, but not fraction $\times$ fraction or mixed $\times$ mixed (deferred past Grade 5 in MN).

Shared 'scaling' language, but MN ties it to ratio tables rather than reasoning about product size relative to factors of 1.

MN covers whole $\div$ fraction in a measurement context; the unit-fraction $\div$ whole-number direction and the mult/division relationship conjecture are not explicit.

Both build volume from unit cubes.

Formula development and packing both present.

First-quadrant graphing and contextual interpretation match closely.

MN poses statistical questions but doesn't address specific numbers of variables or sources of bias.

Collecting/organizing/representing appears in both standards; sampling approaches are absent from MN

Comparing/analyzing visualizations appears in both; sampling and bias are not explicit in MN.

Strong alignment on arguing from center and range; UT's bias and sample-size considerations are not in MN.

Utah strand	Total Utah standards	Strong
#OA standards	3	1
#NBT standards	10	4
#NF standards	5	1
#MG standards	4	3
#D standards	4	0
Total	26	9

Partial	Weak	Different MN grade-level	Utah only	Different Utah grade level
1	0	1	0	0
2	1	0	3	0
3	1	0	0	0
0	0	0	1	0
4	0	0	0	0
10	2	1	4	0

MN only

0
0
0
0
0
0

0

Domain	Topic
Algebra	Working with numerical expressions
Algebra	
Algebra	Equivalent expressions
Algebra	Solving equations
Algebra	
Algebra	Modeling with equations
Number Systems	Solve problems by dividing fractions

Number Systems	Solve problems by dividing decimals
Number Systems	Multi-digit whole-number arithmetic
Number Systems	Greatest common factor & least common multiple
Number Systems	Signed numbers
Number Systems	
Number Systems	Absolute value

Ratios & Proportions	Ratios & unit rate
Ratios & Proportions	
Ratios & Proportions	
Ratios & Proportions	
Ratios & Proportions	Unit conversions
Geometry	Area & surface area
Geometry	
Geometry	
Geometry	

Data Science

Data Science

Data Science

Data investigations

Data Science

of Utah Grade 6 Standards:
26

Utah
6.A.1 Use structure to write and evaluate numerical expressions involving whole numbers exponents. (MP 7)
6.A.2 Describe and represent patterns and structures of expressions to write, read, and evaluate algebraic expressions. (MP 7)
6.A.3 Use properties of operations as tools to generate equivalent expressions. Use properties of operations and understanding of arithmetic to justify why two expressions are equivalent. (MP 3, 5)
6.A.4 Use substitution to reason about whether a given number in a specified set makes an equation or inequality true. Provide justification to support that reasoning. (MP 3)
6.A.5 Describe, represent and solve real-world and mathematical problems using variables within the structure of one-step equations and inequalities. (MP 7)
6.A.6 Create equations to model relationships between two quantities using variables, both in and out of context. (MP 2, 4)
6.NS.1 Extend prior understanding of multiplication and division to divide fractions by fractions. Build and use visual fraction models to make sense of and solve problems dividing fractions by fractions. Add and remove context with problems involving division of fractions by fractions and interpret the quotients. (MP 2, 4)

6.NS.2 Describe and represent structures and patterns to apply an algorithm to divide multi-digit decimals flexibly, accurately, and efficiently. Limit division to a whole number dividend with a decimal divisor or a decimal dividend with a whole number divisor. Determine and justify situations where estimation is appropriate. (MP 3, 6, 7)

6.NS.3 Attend to precision and reasonableness when adding, subtracting, multiplying, and dividing multi-digit whole numbers and decimals flexibly, accurately, and efficiently. (MP 6)

6.NS.4 Find the greatest common factor between two whole numbers 1 to 100 and the least common multiples of two whole numbers 1 to 12 by making use of structures and patterns. Relate greatest common factors to the distributive property. (e.g., re-express $36 + 8$ as $4(9 + 2)$). (MP 7)

6.NS.5 Use positive and negative numbers together to represent quantities in real world contexts, explain the meaning of zero in context. Communicate understanding that positive and negative numbers are used together to describe quantities having opposite directions or values. (MP 2, 3)

6.NS.6 Build and use models to show positive and negative numbers on a number line and coordinate plane. Use models to order positive and negative numbers. (MP 4)

6.NS.7 Build and use models to develop the definition of absolute value. Work with absolute value in and out of context. (MP 2, 4)

6.RP.1 Clearly communicate understanding of ratio relationships by using ratio language. (MP 3)

6.RP.2 Clearly communicate understanding of the concept of a unit rate associated with a ratio and use rate language to represent a unit rate associated with a ratio relationship. (MP 7)

6.RP.3 Build and use models including tables, double number lines, and/or tape diagrams to represent and reason about real-world ratio relationships with whole number quantities. (MP 4)

6.RP.4 Use ratio and rate reasoning as a tool to make sense of and solve problems in context. (MP 5)

6.RP.5 Use ratio reasoning as a tool to convert measurement units when given a unit conversion chart. (MP 5)

6.G.1 Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing and decomposing into rectangles, triangles and/or other shapes. (MP 7)

6.G.2 Build and use nets to represent 3-dimensional figures composed of rectangles and triangles. Use nets as tools to find the surface area of the figure. (MP 4, 5)

6.G.3 Select and use tools appropriately to solve real-world and decontextualized mathematical problems involving surface area and volume of right rectangular prisms with fractional edge lengths. (MP 2, 5)

6.G.4 Construct polygons on the coordinate plane given coordinates for the vertices. Use coordinates to find the length of a side joining points with the same x coordinate or the same y coordinate. Apply these techniques to solve problems with and without real-world context. (MP 2)

6.D.1 Formulate statistical investigative questions that anticipate variability in data and how the data may impact the investigation question. (MP 1)

6.D.2 Select and use tools appropriately and strategically to generate, collect, and organize data. Ask questions about how the data were collected and whether the data are useful to answer the statistical question of interest. (MP 1, 5)

6.D.3 Create precise and reasonable visual representations, including histograms (with or without technology), dot plots, and box plots. Justify which graph or plot best represents the data. Analyze and interpret visual representations and numerical summaries for measures of center (mean and/or median) and measures of variability (mean absolute deviation and/or interquartile range). (MP 3, 6)

6.D.4 Construct, justify, and communicate answers to investigative questions about distributions. Consider the interpretation of the following features of distributions: center (mean and/or median), variability (mean absolute deviation and/or inter quartile range), and overall shape (symmetric or non-symmetric). Describe any striking deviations (outliers). Identify ways to refine investigative questions, data collection, visualization, or analysis. (MP 3)

Strong alignment
Partial alignment
Different grade level
Weak alignment
Utah only--No MN analog

Different Utah grade level
Minnesota only

Minnesota
6.3.5.4 Factor whole numbers. Express a whole number as a product of prime factors with exponents. Identify a prime number as a whole number greater than one whose only factors are one and itself. (MP7, MP8)
6.3.6.3 Represent mathematical situations using expressions, equations and inequalities involving variables and positive rational numbers. (MP4)
6.3.6.1 Generate equivalent numerical expressions involving positive rational numbers and justify why expressions are equivalent. (MP1, MP3)
6.3.6.4 Solve one-step equations, including equations of the form $x + p = q$ and $px = q$ for cases in which p , q and x are all positive rational numbers. Use number sense, properties of arithmetic and the idea of maintaining equality on both sides of the equation. Interpret a solution in the original context and assess the reasonableness of results. (MP3, MP4)
6.3.6.4 Solve one-step equations, including equations of the form $x + p = q$ and $px = q$ for cases in which p , q and x are all positive rational numbers. Use number sense, properties of arithmetic and the idea of maintaining equality on both sides of the equation. Interpret a solution in the original context and assess the reasonableness of results. (MP3, MP4)
6.3.7.1 Use variables to represent two quantities in a situation that change in relationship to one another. Write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables and relate these to the equation. (MP2, MP8)
6.3.5.8 Multiply and divide fractions and mixed numbers using visual models to represent the situation leading towards generalizable algorithms. (MP2)
6.3.5.9 Solve mathematical situations requiring arithmetic, including multiplication and division, with decimals, fractions and mixed numbers, explaining the solution pathway. Interpret quotients in the context of the situation. (MP3, MP4)

6.3.5.9 Solve mathematical situations requiring arithmetic, including multiplication and division, with decimals, fractions and mixed numbers, explaining the solution pathway. Interpret quotients in the context of the situation. (MP3, MP4)

6.3.5.7 Estimate solutions to situations with whole numbers, fractions and decimals and use the estimates to assess the reasonableness of the results in the context of the situation. (MP2)

6.3.5.9 Solve mathematical situations requiring arithmetic, including multiplication and division, with decimals, fractions and mixed numbers, explaining the solution pathway. Interpret quotients in the context of the situation. (MP3, MP4)

6.3.5.7 Estimate solutions to situations with whole numbers, fractions and decimals and use the estimates to assess the reasonableness of the results in the context of the situation. (MP2)

6.3.5.5 Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum or difference of two whole numbers, from 1 through 100, with a common factor as a multiple of a sum or difference of two whole numbers with no common factor. (MP2, MP8)

6.3.5.1 Use positive and negative numbers to describe quantities having opposite directions or values, represent quantities in contexts and explain the meaning of 0 in situations including credits/debits, temperature above/below zero, elevation above/below sea level and positive/negative electric charge. (MP4, MP5)

6.3.5.2 Locate positive and negative rational numbers on a number line. Plot ordered pairs of positive and negative rational numbers on a coordinate grid. (MP4, MP6)

6.3.5.3 Interpret statements of inequality ($<$, $>$, $=$) as statements about the relative position of two numbers on a number line, including positive and negative rational numbers in various forms. (MP1)

6.3.5.6 Understand the absolute value of a rational number as its distance from 0 on the number line. Interpret absolute value as magnitude for a positive or negative quantity in context. (MP4, MP7)

6.3.6.5 Identify and use ratios to compare quantities. Understand that comparing quantities using ratios is not the same as comparing quantities using subtraction. (MP1)
6.3.5.10 Solve situations using the concept of a unit rate a/b associated with a ratio $a : b$ with $b \neq 0$ in context, including constant speed and unit pricing to make purchase decisions. (MP4)
6.3.6.6 Solve ratio and rate situations, including mixtures and concentrations, by modeling with tables of equivalent ratios, tape diagrams, double number lines or equations. (MP4, MP7)
6.3.6.6 Solve ratio and rate situations, including mixtures and concentrations, by modeling with tables of equivalent ratios, tape diagrams, double number lines or equations. (MP4, MP7)
6.3.5.10 Solve situations using the concept of a unit rate a/b associated with a ratio $a : b$ with $b \neq 0$ in context, including constant speed and unit pricing to make purchase decisions. (MP4)
6.2.3.3 Solve situations in various contexts involving conversion of time, weights, capacities, lengths and area within measurement systems using appropriate units. (MP4, MP5)
6.2.3.5 Find the area of special quadrilaterals and polygons by composing into rectangles or decomposing into triangles and other shapes. Apply these techniques in contextual mathematical situations. (MP2, MP5)
6.2.3.1 Calculate the measurements of the surface area of rectangular and triangular prisms using appropriate units. Justify the formulas used. Justification may involve decomposition, nets or other models. (MP1, MP3)
6.2.3.2 Calculate the measurement of the volume of prisms (including triangular and nonrectangular prisms) using appropriate units. Justify the formulas used. Justification may involve decomposition or other models. (MP1, MP7)
6.2.3.1 Calculate the measurements of the surface area of rectangular and triangular prisms using appropriate units. Justify the formulas used. Justification may involve decomposition, nets or other models. (MP1, MP3)
6.2.4.3 Draw polygons in the coordinate plane given coordinates for the vertices. Use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in contextual situations. (MP4, MP7)

6.1.1.1 Recognize a statistical question as one that anticipates variability in the data, compares differences between groups and collects categorical or numerical data related to the question, and accounts for it in the answer. (MP2)

6.1.1.2 Design and conduct investigations and experiments to gather data, while considering cultural perspectives, to answer statistically investigative questions considering variability and justifying choice of variables. (MP3, MP6)

6.1.1.2 Design and conduct investigations and experiments to gather data, while considering cultural perspectives, to answer statistically investigative questions considering variability and justifying choice of variables. (MP3, MP6)

6.1.1.4 Create a visualization about a data set to describe patterns, highlight relationships or illustrate features of the distribution of the data to answer or help answer their statistically investigative question. Visualizations should represent the data in appropriate ways, including tables, dot plots, stem-and-leaf plots, histograms and box plots while incorporating any other relevant information that helps to tell a story about the data. (MP5, MP6)

6.1.1.3 Identify, determine and interpret measures of center (mean and median) and measures of variability (range, interquartile range, mean-absolute deviation) to answer a statistically investigative question, summarizing the distribution of data using the measures of center and variability. (MP1, MP2)

6.1.1.3 Identify, determine and interpret measures of center (mean and median) and measures of variability (range, interquartile range, mean-absolute deviation) to answer a statistically investigative question, summarizing the distribution of data using the measures of center and variability. (MP1, MP2)

6.1.1.5 Compare and communicate competing explanations for data trends observed, considering cultural perspectives and reasonable alternatives given the variability in findings. (MP3, MP6)

50.0%
46.2%
0.0%
3.8%
0.0%
100.0%

0
0

Alignment
Partial
Partial
Partial
Weak
Partial
Strong
Strong

Partial
Partial
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Partial

Commentary
MN works with numerical expressions but has no benchmark for writing/evaluating expressions with whole-number exponents. MN 6.3.5.4 addresses exponents only as part of prime factorization.
Both involve algebraic expressions with variables, but UT emphasizes write/read/evaluate; MN emphasizes representing situations.
The 'generate equivalent + justify' intent matches closely, but MN specifies numerical expressions while Utah does not.
MN solves and checks equations but has no benchmark on testing values from a specified set by substitution.
MN strongly matches one-step equations, but UT also requires solving inequalities, which MN addresses only at the representation level (6.3.6.3).
Both model two-quantity relationships with equations; MN adds explicit dependent/independent analysis with graphs and tables.
Fraction division with visual models and interpreting quotients in context are both covered.

MN includes decimal division and estimation, but folds it into general arithmetic rather than a dedicated multi-digit decimal-division algorithm with UT's dividend/divisor limits.

Reasonableness and decimal/whole-number arithmetic are present, but MN has no stand-alone fluency benchmark for the four operations on multi-digit whole numbers and decimals.

Essentially identical GCF/LCM ranges and the distributive-property connection.

Same concept; MN supplies concrete real-world contexts.

Number line, coordinate grid, and ordering all covered, but MN requires students being able to interpret equations and inequalities as statements about relative position on the number line

Definition (distance from 0) and contextual interpretation match.

Both target the ratio concept; UT stresses ratio language, MN stresses ratio-vs-additive comparison.
The unit-rate concept matches well; MN applies it in context, UT emphasizes rate language.
Identical set of ratio models (tables, double number lines, tape diagrams).
Solving ratio/rate problems in context is central to both.
Both convert measurement units, but MN frames it as measurement (within systems) rather than ratio reasoning with a conversion chart.
Same compose/decompose strategy for area of quadrilaterals and polygons.
Both find surface area of rectangular/triangular prisms using nets.
SA and volume of prisms are well covered (MN extends to triangular/nonrectangular prisms), but MN does not specify right rectangular prisms with fractional edge lengths.
Near-identical wording.

Formulating statistical questions that anticipate variability is core to both.

Both address gathering data to answer a question, but UT emphasizes tool selection and critiquing data collection/usefulness, which MN touches only via 'justifying choice of variables.'

Both cover the same plot types plus center (mean/median) and variability (MAD/IQR).

Center, variability, and communicating explanations align, but MN does not explicitly address overall shape (symmetry), outliers, or refining the investigation.

Utah strand

Total Utah
standards

Strong

#A standards	6	1
#NS standards	7	4
#RP standards	5	3
#G standards	4	3
#D standards	4	2
Total	26	13

Partial	Weak	Different MN grade-level	Utah only	Different Utah grade level
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4	1	0	0	0
3	0	0	0	0
2	0	0	0	0
1	0	0	0	0
2	0	0	0	0
12	1	0	0	0

MN only

0
0
0
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0

Domain	Topic
Ratios & Proportions	Percents & Financial Applications
Ratios & Proportions	
Ratios & Proportions	
Ratios & Proportions	
Ratios & Proportions	Ratios, Rates, & Proportional Relationships
Ratios & Proportions	
Ratios & Proportions	

Ratios & Proportions	
Algebra	
Algebra	Expressions, Equations, & Inequalities
Algebra	
Algebra	
Algebra	
Number Systems	

Number Systems	The Number System & Rational Numbers
Number Systems	
Number Systems	
Number Systems	
Geometry	Scale Drawings, Constructions, & Similarity
Geometry	

Geometry	Circles, Area, Surface Area, Volume & Angles
Geometry	
Geometry	
Geometry	
Geometry	
Geometry	
Geometry	
Data Science	
Data Science	

Data Science	Statistics & Sampling
Data Science	
Data Science	Probability
Data Science	
Data Science	
Data Science	

of Utah Grade 7 Standards:
28

Utah
7.RP.2 Understand percent of a quantity as a rate per 100. Describe and represent structures and patterns that connect percent to ratio. (MP 7)
7.RP.3 Build and use models including tables, graphs, double number lines, or tape diagrams to find a percent of a quantity as a rate per 100. Solve problems involving finding the whole, the part, or the percent. (MP 4)
7.RP.6 Use proportional relationships as a tool to solve multi-step and percent problems such as simple interest, tax, markups and markdowns, gratuities and commissions, fees, and percent increase and decrease. (MP 5)
<i>No corresponding Utah Grade 7 standard</i>
7.RP.1 Calculate unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities. Apply unit rate as a tool to make and evaluate conjectures about proportional relationships. (MP 8)
7.RP.4 Recognize structures and patterns when analyzing real world contexts to determine whether two quantities have a proportional relationship. Use tables, graphs, equations, diagrams and verbal descriptions to justify whether a relationship is proportional. (MP 3, 7)
7.RP.5 Build and use models (tables, graphs, equations, diagrams and verbal descriptions) to represent proportional relationships and identify and interpret the constant of proportionality. (MP 4)

7.RP.7 Interpret the meaning of a point (x,y) on the graph of a proportional relationship in a given context. Connect and interpret the relationship between the points $(0, 0)$ and $(1, r)$ where r is the unit rate. (MP 4, 7)

7.A.4 Build and use models including tables, graphs, and equations to represent and understand the relationship between independent and dependent variables. (MP 4)

7.A.1 Apply properties of operations as tools to add, subtract, factor and expand linear expressions with rational coefficients in different forms. (MP 5)

7.A.2 Use algebraic tools to solve equations and inequalities representing real-world problems of the form $px+q=r$ and $p(x+q)=r$ using positive and negative rational numbers. Attend to the reasonableness of the solutions. (MP 5, 6)

7.A.3 Given a context, construct equations and inequalities to model real-world problems of the form $px+q=r$ and $p(x+q)=r$ using positive and negative rational numbers. (MP 4)

No corresponding Utah Grade 7 standard

7.NS.1 Describe and represent structures, patterns and relationships to define rational numbers and make connections between fraction, decimal and percent representations. of a rational number. Flexibly use the various representations of rational numbers while attending to precision. (MP 6, 7)

7.NS.2 Build and use models including a horizontal or vertical number line diagram to extend previous understanding of addition and subtraction to add and subtract rational numbers in and out of context including signed decimals and fractions. (MP 2, 4)

7.NS.3 Extend previous understanding of multiplication and division to multiply and divide rational numbers in and out of context. (MP 2)

7.NS.4 Flexibly, accurately, and efficiently add, subtract, multiply and divide rational numbers including signed decimals and fractions in and out of context. Attend to precision and reasonableness of solutions. (MP 5, 6)

No corresponding Utah Grade 7 standard

7.G.1 Select and use tools appropriately and strategically (e.g., a compass, straightedge, dynamic geometry software) to draw and accurately describe scaled geometrical figures. Utilize the underlying structure of scale drawings to understand scale factor and solve real world and mathematical problems. (MP 5, 7)

7.G.2 Select and use tools appropriately and strategically to create triangles from given conditions to determine whether a unique triangle, more than one triangle, or no triangle can be formed. (MP 5)

No corresponding Utah Grade 7 standard

No corresponding Utah Grade 7 standard

7.G.3 Flexibly, accurately and efficiently solve real-world and mathematical problems involving perimeter and area of circles, triangles, quadrilaterals and polygons as well as surface area of right prisms. (MP 2, 6)

7.G.4 Describe and use the relationship between the area of a base of a right-prism and its volume to solve real world and mathematical problems. (MP 7)

7.G.5 Describe and represent structures, patterns, and relationships related to supplementary, complementary, vertical, and adjacent angles to solve for unknown angle measures in a figure. (MP 7)

No corresponding Utah Grade 7 standard

No corresponding Utah Grade 7 standard

7.D.1 Formulate statistical investigative questions that anticipate variability in data collected from a random sample of a population. (MP 1)

7.D.2 Generate, collect, and organize randomly sampled data that is representative of the population using tools appropriately. Explain why random sampling is more likely to produce representative samples and support valid inferences using clear and reasonable arguments. (MP 3, 5)

7.D.3 Create precise and reasonable visual representations, including histograms (with technology), dot plots, and box plots. Analyze and interpret visual representations and numerical summaries for measures of center (mean and/or median) and measures of variability (mean absolute deviation and/or inter-quartile range). (MP 6)

7.D.4 Construct, justify, and communicate answers to investigative questions about a population and comparisons about two different populations. Compare features such as center (mean and median), variability (mean absolute deviation and inter-quartile range) and overall shape (symmetric or nonsymmetric). (MP 3)

7.D.5 Communicate clear understanding that the probability of a chance event is the likelihood of an event occurring and is expressed as a number between 0 and 1. (MP 3)

7.D.6 Estimate the probability of a chance event by observing its long-run relative frequency. Given the probability, predict and evaluate the reasonableness of approximate relative frequencies. (MP 8)

7.D.7 Build and use probability models such as organized lists, tables, tree diagrams, and simulations to find or estimate probabilities of simple and compound events. (MP 4)

7.D.8 Build a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies. If the agreement is not good, explain possible sources for discrepancy. (e.g., find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down...) (MP 4)

Strong alignment
Partial alignment
Different grade level
Weak alignment
Utah only--No MN analog

Different Utah grade level
Minnesota only

Minnesota
7.3.6.5 Solve multi-step financial literacy situations including simple interest, tax, markups and markdowns, tips and commissions, fees, percent increase and decrease and percent error. ... Situations include finding the whole, the part and the percent. (MP7, MP8)
7.3.6.4 Solve multi-step situations involving proportional relationships in numerous contexts using models, such as tables of equivalent ratios involving scaling up and down, tape diagrams, double number lines or equations. (MP4, MP7) 7.3.6.5 Solve multi-step financial literacy situations ... Situations include finding the whole, the part and the percent. (MP7, MP8)
7.3.6.5 Solve multi-step financial literacy situations including simple interest, tax, markups and markdowns, tips and commissions, fees, percent increase and decrease and percent error. Distinguish between sales tax and income tax for earned wages. Situations include finding the whole, the part and the percent. (MP7, MP8)
7.3.5.5 Create a budget using positive and negative rational numbers for an event and calculate what percentage of the total budget each category comprises. Justify choices of the allocation of the available resources. (MP1, MP4, MP5)
7.3.5.7 Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. (MP1, MP4)
7.3.7.3 Determine whether two quantities are in a proportional relationship by testing for equivalent ratios in a table or graphing on a coordinate plane and by observing whether the graph is a straight line through the origin. Use graphing technology to examine the relationship between the unit rate and the line for a given situation. (MP1) 7.3.7.2 Express a relationship between two variables, the independent (x) and the dependent (y), as proportional if it can be written in the form $y/x = k$ or $y = kx$. Distinguish proportional relationships from non-proportional relationships, including relationships where the x and y value are not 0. (MP8)
7.3.7.1 Represent proportional relationships with tables, verbal descriptions, symbols, equations and graphs. Translate from one representation to another. Determine the unit rate (constant of proportionality or rate of change) given any of these representations. (MP2, MP8)

7.3.7.3 Determine whether two quantities are in a proportional relationship ... Use graphing technology to examine the relationship between the unit rate and the line for a given situation. (MP1)
7.3.7.2 Express a relationship between two variables, the independent (x) and the dependent (y), as proportional if it can be written in the form $y/x = k$ or $y = kx$. Distinguish proportional relationships from non-proportional relationships, including relationships where the x and y value are not 0. (MP8)
7.3.7.1 Represent proportional relationships with tables, verbal descriptions, symbols, equations and graphs. Translate from one representation to another. (MP2, MP8)
7.3.6.1 Use properties of algebra to generate equivalent numerical and algebraic expressions containing rational numbers, grouping symbols and whole number exponents. Properties of algebra include associative, commutative and distributive laws. (MP1)
7.3.6.2 Represent and solve contextual situations resulting in two-step equations and inequalities involving variables and positive/negative rational numbers. Graph the solution set of the inequality and interpret the solution in context. (MP4, MP5)
7.3.6.2 Represent and solve contextual situations resulting in two-step equations and inequalities involving variables and positive/negative rational numbers. Graph the solution set of the inequality and interpret the solution in context. (MP4, MP5)
7.3.6.3 Evaluate algebraic expressions, including expressions containing rational numbers, absolute value and whole number exponents, by applying computational hierarchy of operations at specified values of their variables. (MP7)
7.3.5.1 Know that every rational number can be written as the ratio of two integers and as a terminating or repeating decimal. Recognize that π is not rational but that it can be approximated by rational numbers such as $22/7$ and 3.14. (MP8)

7.3.5.4 Recognize subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference and apply this principle in contexts. (MP7, MP8)

7.3.5.2 Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line. Recognize that the opposite of the opposite of a number is the number itself, such as $-(-3) = 3$. Recognize that 0 is its own opposite. (MP7)

7.3.5.6 Solve mathematical situations involving adding, subtracting, multiplying and dividing positive and negative rational numbers that are integers, fractions and terminating decimals. Use efficient and generalizable procedures. Raise positive rational numbers to whole-number exponents. (MP4)

7.3.5.6 Solve mathematical situations involving adding, subtracting, multiplying and dividing positive and negative rational numbers that are integers, fractions and terminating decimals. Use efficient and generalizable procedures. Raise positive rational numbers to whole-number exponents. (MP4)

7.3.5.3 Compare positive and negative rational numbers expressed in various forms including the symbols $<$, $>$, $=$, $\leq$ and $\geq$. (MP4)

7.2.4.4 Use proportional reasoning and ratios to solve situations involving scale drawings and conversions of measurement units. (MP2, MP4)

7.2.4.3 Apply scale factors, length ratios and area ratios to determine side lengths and areas of similar geometric figures. (MP5)

No corresponding Minnesota Grade 7 benchmark

7.2.4.1 Graph and describe translations and reflections of figures on a coordinate grid. Determine the coordinates of the vertices of the figure after the transformation. Describe the properties of congruency when performing translations and reflections. (MP8)

7.2.4.2 Describe the properties of similarity, distinguishing between similarity and congruency, compare geometric figures for similarity and determine scale factors. (MP1, MP6)

7.2.3.2 Calculate the circumference and area of circles to solve situations in various contexts. (MP4, MP6)

7.2.3.4 Calculate the surface area and volume of cylinders. Justify the formulas used. (MP3, MP8)

7.2.3.4 Calculate the surface area and volume of cylinders. Justify the formulas used. (MP3, MP8)

No corresponding Minnesota Grade 7 benchmark

7.2.3.1 Demonstrate an understanding of the proportional relationship between the diameter and circumference of a circle and that the unit rate (constant of proportionality) is π . (MP1, MP2)

7.2.3.3 Calculate the arc length and area of sectors of circles (given the central angle) to solve situations in various contexts. (MP4, MP7)

7.1.1.1 Formulate statistical investigative questions with data collection, keeping cultural perspectives in mind, which compare differences between groups, require a sample of a population and use categorical and/or numerical data. (MP3, MP6)

7.1.1.2 Describe how statistics can be used to gain information about a population by examining a sample ... random sampling tends to produce representative samples and support valid inferences. (MP2)

7.1.1.3 Make inferences using statistics about population parameters based on a random sample from that population. (MP3)

7.1.1.5 Create a visualization about a data set, organizing and presenting the data in appropriate ways, including in tables, circle graphs and histograms ... (MP5, MP6)

7.1.1.4 Understand that a set of data ... has a distribution that can be described by its center, variability and overall shape. Use measures of center and measures of variability for numerical data from random samples ... (MP1, MP7)

7.1.1.4 ... Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. Justify the choice of measures of center and variability, the shape of the data distribution and the context ... (MP1, MP7)

7.1.1.6 Compare and communicate multiple explanations for data trends observed ... (MP3, MP6)

7.1.2.1 Calculate probability as a fraction of sample space or as a fraction of area. Express probabilities as fractions, decimals and percentages. (MP2)

7.1.2.2 Approximate the probability of a chance event, where the theoretical probability is unknown, by collecting data and observing its long-run frequency. Represent the probabilities as percentages, fractions and decimals between 0 and 1 inclusive. Use approximate probabilities to make predictions when actual probabilities are unknown. (MP4)

7.1.2.6 Find probabilities of compound events using organized lists, tables, tree diagrams and/or simulation via a computational tool. (MP5)

7.1.2.4 Represent sample spaces for compound events ... using methods such as organized lists, tables and/or tree diagrams. (MP5)

7.1.2.3 Recognize that ... the probability of a compound event is the fraction of outcomes in the sample space where the compound event occurs. (MP1)

7.1.2.2 Approximate the probability of a chance event ... by collecting data and observing its long-run frequency ... Use approximate probabilities to make predictions when actual probabilities are unknown. (MP4)

7.1.2.6 Find probabilities of compound events using organized lists, tables, tree diagrams and/or simulation via a computational tool. (MP5)

53.6%
39.3%
0.0%
0.0%
7.1%
100.0%

3
4

Alignment
Partial
Strong
Partial
Minnesota only
Strong
Strong
Strong

Partial
Partial
Strong
Partial
Strong
Minnesota only
Partial

Strong

Strong

Strong

Different Utah grade
level

Partial

Utah only

Different Utah grade level
Different Utah grade level
Partial
Partial
Utah only
Minnesota only
Minnesota only
Strong
Strong

Partial

Strong

Strong

Strong

Strong

Partial

Commentary
MN applies percent within financial situations (finding the whole, part, and percent), but does not include the conceptual treatment of percent as a rate per 100 connected to ratio, which is the focus of Utah 7.RP.2 (MN develops that concept in Grade 6).
Both use the same models (tables, tape diagrams, double number lines) for proportional/percent reasoning and solve for the whole, the part, or the percent.
Near-identical problem lists: simple interest, tax, markups/markdowns, tips/commissions (gratuities), fees, and percent increase/decrease. MN adds percent error and the sales-tax/income-tax distinction. However, Utah specifies using proportional relationships whereas the MN standard does not.
Budget creation and resource-allocation reasoning is an explicit MN financial-literacy benchmark with no counterpart in the Utah Grade 7 standards.
Near-identical: computing unit rates associated with ratios of fractions (lengths, areas, and other quantities). Utah adds using unit rate to make/evaluate conjectures about proportionality.
Both determine whether two quantities are proportional using tables and graphs (equivalent ratios, a straight line through the origin) and distinguish proportional from non-proportional relationships.
Both represent proportional relationships across tables, descriptions, equations, and graphs and identify/interpret the constant of proportionality (unit rate).

MN examines the graph of a proportional relationship and the connection between the unit rate and the line, but does not specifically interpret the meaning of the points (0, 0) and (1, r) in context as Utah requires.

MN addresses relationships between independent (x) and dependent (y) variables, but specifically within the context of proportionality, whereas Utah 7.A.4 represents independent/dependent variable relationships more generally.

Both generate equivalent linear expressions with rational coefficients using the properties of operations (associative, commutative, distributive). Utah names the specific moves (add, subtract, factor, expand).

Both solve two-step equations and inequalities with positive/negative rational numbers in context. MN adds graphing/interpreting the inequality solution set; Utah emphasizes the $px+q$ and $p(x+q)$ forms and reasonableness.

MN 7.3.6.2 covers representing (constructing) contextual two-step equations/inequalities, which is the modeling focus of Utah 7.A.3 (Utah separates constructing in 7.A.3 from solving in 7.A.2).

Evaluating algebraic expressions (with absolute value and exponents) at specified variable values is a distinct MN benchmark; Utah Grade 7 focuses on generating equivalent expressions rather than evaluating them at given values.

MN 7.3.5.1 defines rational numbers as ratios of integers with terminating/repeating decimals, but Utah's emphasis on flexibly connecting fraction, decimal, AND percent representations is broader; the percent connection is not in MN's number benchmark.

Both extend addition/subtraction to rational numbers using number-line reasoning: 7.3.5.4 frames subtraction as adding the inverse and as number-line distance, and 7.3.5.2 establishes opposites on the number line.

MN 7.3.5.6 explicitly extends multiplication and division to positive and negative rational numbers, matching Utah's expectation.

Both require fluent (efficient, generalizable) addition, subtraction, multiplication, and division of rational numbers including signed fractions and decimals.

MN has a dedicated benchmark for comparing/ordering signed rational numbers with inequality symbols; Utah addresses comparison of rational numbers in Grade 6 rather than calling it out at Grade 7.

Both work with scale drawings and scale factor using proportional reasoning: 7.2.4.4 solves scale-drawing situations and 7.2.4.3 applies scale factors and length/area ratios. However, Utah specifically emphasizes using specific geometric tools.

Constructing triangles from given conditions and determining whether a unique triangle, more than one, or none can be formed is not addressed in the Minnesota Grade 7 benchmarks.

Rigid transformations (translations, reflections) and congruency on the coordinate grid appear in MN Grade 7; Utah introduces transformations and congruence in Grade 8 (8.G.1).
Defining similarity and distinguishing it from congruency appears in MN Grade 7; Utah develops similarity through transformations in Grade 8 (8.G.2).
MN covers circle circumference/area (7.2.3.2) and cylinder surface area (7.2.3.4), but does not address perimeter/area of triangles, quadrilaterals, and polygons or surface area of right prisms, which Utah includes.
MN develops volume (and surface area) for cylinders and justifies the formulas, which parallels the base-area-times-height idea, but Utah frames the standard around right prisms generally rather than cylinders.
Angle relationships (supplementary, complementary, vertical, adjacent) used to find unknown angle measures are not addressed in the Minnesota Grade 7 benchmarks.
Framing π as the constant of proportionality between diameter and circumference is an explicit MN benchmark; Utah computes circle measures (7.G.3) without isolating this proportional-reasoning statement.
Arc length and area of sectors of circles is a Minnesota Grade 7 benchmark with no counterpart in the Utah Grade 7 standards.
Both formulate statistical investigative questions that involve sampling a population and anticipate variability/differences between groups.
Both establish that random sampling produces representative samples supporting valid inferences about a population, and use samples to make inferences.

MN creates data visualizations (histograms, circle graphs) and uses measures of center and variability, but does not specify dot plots, box plots, mean absolute deviation, or inter-quartile range as Utah does.

Both draw and communicate comparative inferences about two populations using center, variability, and overall shape of the distributions.

Both establish probability as a number expressing likelihood (MN as a fraction of the sample space, expressed as fractions/decimals/percentages); MN 7.1.2.2 additionally states probabilities lie between 0 and 1.

Near-identical: approximating probability from long-run relative frequency and using it to make/evaluate predictions.

Both build probability models (organized lists, tables, tree diagrams, simulations) to find probabilities of simple and compound events; MN 7.1.2.5 also designs simulations within a computational tool.

MN compares experimental (approximate) probabilities to predictions and finds probabilities via simulation, but does not explicitly require comparing a model's (theoretical) probabilities to observed frequencies and explaining sources of discrepancy as Utah does.

Utah strand	Total Utah standards	Strong
#RP standards	7	4
#A standards	4	2
#NS standards	4	3
#G standards	5	0
#D standards	8	6
Total	28	15

Partial	Weak	Different MN grade-level	Utah only	Different Utah grade level
3	0	0	0	0
2	0	0	0	0
1	0	0	0	1
3	0	0	2	2
2	0	0	0	0
11	0	0	2	3

MN only

1

1

0

2

0

4

Domain	Topic
Algebra	Exponential Expressions
Algebra	
Algebra	
Algebra	
Algebra	

Algebra	Solving Equations and Inequalities
Algebra	Solving Systems of Equations
Algebra	

Algebra

Linear Functions and Slope

Functions

Functions

Functions

Functions

Functions

Functions

Functions	Function Basics
Functions	Modeling with Functions
Functions	Features of Functions
Number Systems	Irrational Numbers
Number Systems	
Number Systems	
Number Systems	
Geometry	Rigid Transformations
Geometry	

Geometry	
Geometry	
Geometry	Triangles & Angle Relationships
Geometry	
Geometry	Measurement
Data Science	
Data Science	

Data Science	
Data Science	
Data Science	Bivariate Data
Data Science	
Data Science	
Data Science	
Data Science	
Data Science	
Data Science	Sequences

Data Science	
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of Utah Grade 8 Standards:
31

Utah

8.A.1 Use structure and patterns to develop and apply the properties of integer exponents to generate equivalent expressions. (MP 7)

8.A.2 Use structure and patterns of operations to simplify and evaluate algebraic expressions, including those involving rational coefficients, exponents, and polynomial terms. (MP 7)

8.A.3 Use algebraic tools strategically to represent solutions to equations in the form $x^2 = p$ and $x^3 = p$. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. (MP 5)

8.A.4 Represent the structure and patterns of numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and express how many times as much one is than the other. (MP 7)

8.A.5 Apply structures, properties and patterns of exponents to perform all four operations with scientific notation. Interpret scientific notation in terms of a context. (MP 2, 7)

8.A.8 Use structures, patterns and properties of equivalence to solve symbolic and real-world single-variable equations and inequalities with rational number coefficients and justify algebraically. Solve absolute value equations in the form $|px|+q=c$ or $|px+q|=c$. (MP 7)

8.A.9 Build and use graphic models to analyze and solve systems of two linear equations in two variables and interpret their solutions. Identify systems that have zero, one, and infinite solutions with or without context. (MP 2, 4)

8.A.6 Represent patterns by graphing proportional relationships and interpret the unit rate as the slope of the graph. Use the structure of similar triangles to explain why the slope is the same between any two distinct points on a non-vertical line in the coordinate plane. (MP 7)

8.A.7 Represent and compare linear relationships using graphs, tables, and equations with or without context. Interpret slope and intercepts in context. (MP 2)

8.F.2 Given a representation (verbal description, table, two coordinate pairs, or an equation of $y=mx+b$), determine and interpret the rate of change and the initial value in and out of context. (MP 2, 4)

8.F.5 Use multiple representations (tables, graphs, equations, diagrams and verbal descriptions) to compare the properties of linear and nonlinear functions with and without a context. Justify whether a function is linear or non-linear. (MP 3)

(No corresponding Utah Grade 8 standard)

(No corresponding Utah Grade 8 standard)

(No corresponding Utah Grade 8 standard)

(No corresponding Utah Grade 8 standard)

8.F.1 Construct and communicate clear arguments as to whether a relation is a function. (MP 3)

8.F.3 Construct a function to model a linear relationship between two quantities when given a verbal description, a table, and a graph. (MP 4)

8.F.4 Given a graph of two quantities (linear and non-linear), describe and represent features of the relationship, including intervals where the function is increasing or decreasing, the location of its maximum and minimum values. Build graphic models that satisfy given qualitative features. (MP 4, 7)

8.NS.1 Describe and represent structures and patterns comparing the set of irrational numbers to the set of rational numbers, in order to determine properties of irrational numbers. (MP 7)

8.NS.2 Find rational approximations of irrational numbers, attending to precision and reasonableness. Use a number line diagram as a model to compare values of irrational numbers. (MP 4, 6)

8.NS.3 Estimate the value of expressions containing irrational numbers, with and without a context. (MP 2)

8.NS.4 Justify why sums and products of rational numbers are rational, that the sum of a rational number and an irrational number is irrational, and that the product of a nonzero rational number and an irrational number is irrational. Build and use models to connect to physical situations. (MP 3, 4)

8.G.1 Use rigid transformations to establish a definition of congruent figures. Justify that two shapes are congruent through the use of rigid transformations. Make and evaluate conjectures about attributes of, rotations, reflections, and translations with and without coordinates. (MP 3, 8)

8.G.2 Use transformations (dilation, translation, reflection and rotation) to establish a definition of similar figures. Justify that two shapes are similar through the use of transformations. Make and examine conjectures about attributes of dilations, with and without coordinates. (MP 3, 8)

8.G.3 Ask questions to determine the difference between congruence and similarity in terms of transformations. Clearly communicate the distinction between congruent and similar figures. (MP 1, 3)

8.G.4 Create and communicate informal arguments that establish angle relationships for parallel lines cut by a transversal and angle relationships for triangles, including the angle sum and exterior angle. (MP 3)

8.G.5 Use the Pythagorean theorem when solving problems with right triangles and finding distance between two coordinate points. Use geometric structures and numerical patterns to understand and explain proofs of the Pythagorean Theorem. (MP 7)

8.G.6 Solve real-world and mathematical problems with or without a context involving right triangles, distance, and volume of cones, cylinders, and spheres. (MP 2)

8.D.1 Ask questions about bivariate data sets (quantitative and categorical) to investigate patterns of associations between two quantities. (MP 1)

8.D.2 Select and use tools appropriately and strategically to identify existing data sets or generate, collect, and organize data to investigate associations between two quantities. (MP 5)

8.D.3 Explore, describe and compare variability in bivariate data for quantitative variables by creating scatter plots. For scatter plots that suggest a linear association, represent the relationship with a linear equation, and informally assess the line of fit by judging the closeness of the data points to the line. (MP 7)

8.D.4 Describe, represent and explain patterns of association such as clustering, positive or negative association, linear or nonlinear association and effects of outliers. (MP 7)

8.D.5 Answer investigative questions by interpreting quantitative bivariate data. Construct, justify, and communicate clear and reasonable arguments regarding the data. Use the equation of a linear model to solve problems in the context of bivariate measurement data, including interpreting the slope and intercept. Identify ways to refine the question, data collection, visualization, or analysis. (MP 3, 4)

8.D.6 Explore, describe and compare variability in bivariate data for categorical variables by constructing two-way tables. Calculate and interpret relative frequencies for rows or columns in a two-way table. Attend to precision and reasonableness. (MP 6)

8.D.7 Construct, analyze, and communicate clear and reasonable arguments to answer investigative questions about the association between categorical bivariate data. Use the relative frequencies calculated for rows or columns as evidence to justify and describe possible associations between the two variables. (MP 3)

(No corresponding Utah Grade 8 standard)

(No corresponding Utah Grade 8 standard)

(No corresponding Utah Grade 8 standard)

Strong alignment

Partial alignment

Different grade level

Weak alignment

Utah only—No MN analog

Different Utah grade level

Minnesota only

Minnesota
8.3.5.3 Know and apply the properties of positive and negative integer exponents to generate equivalent numerical expressions. (MP1)
8.3.6.1 Justify steps in generating equivalent algebraic expressions and identify the properties used. Properties include the associative, commutative, distributive, identity and inverse. (MP1, MP3) 8.3.6.2 Evaluate algebraic expressions, including expressions containing radicals and absolute values, by applying computational hierarchy of operations at specified values of their variables. (MP7)
8.3.6.4 Use the relationship between square roots and squares of a number to solve situations. (MP2, MP6)
8.3.5.4 Express approximations of very large and very small numbers using scientific notation. Understand how technology displays numbers in scientific notation. Compare numbers expressed in scientific notation using the symbols $<$, $>$, $=$, $\leq$ and $\geq$. (MP4, MP5)
8.3.5.5 Multiply and divide numbers expressed in scientific notation. Express answers in scientific notation. (MP5) 8.3.5.4 Express approximations of very large and very small numbers using scientific notation ... Compare numbers expressed in scientific notation using the symbols $<$, $>$, $=$, $\leq$ and $\geq$. (MP4, MP5)

8.3.6.3 Solve multi-step equations in one variable ... Justify the steps by identifying the properties of the equality used. (MP3, MP4)

8.3.6.7 Represent relationships ... using multi-step linear inequalities. Solve linear inequalities using properties of inequalities. Graph the solutions ... (MP4)

8.3.6.8 Represent relationships ... with equations and inequalities involving the absolute value of a linear expression. Solve such equations and inequalities and graph the solutions on a number line. (MP4)

8.3.6.9 Represent relationships in various contextual situations using systems of linear equations. Solve systems of linear equations in two variables, symbolically and graphically, understanding that the solution corresponds to the point of intersection of their graphs. (MP4, MP5)

8.2.4.3 Identify the different types of solutions possible for a system of linear equations (no solution, one solution, infinitely many solutions). Using slope, compare the number of solutions to the graphical representation of pairs of lines ... (MP2)

8.2.4.1 Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane. Derive the equation $y = mx$ for a line through the origin and the equation $y = mx + b$ for a line intercepting the vertical axis at b . (MP8)

8.3.7.1 Compare graphical properties of proportional and non-proportional linear relationships, including slope. (MP7)

8.3.7.4 Represent linear functions with tables, verbal descriptions, symbols, equations and graphs. Translate from one representation to another. (MP5)

8.3.7.6 Identify graphical properties of linear functions in the form $f(x) = mx + b$, including slope, y-intercept and x-intercept ... the slope (m) equals the rate of change, the y-intercept (b) is the value of the function at $x = 0$... (MP1, MP5)

8.3.7.6 Identify graphical properties of linear functions in the form $f(x) = mx + b$... the slope (m) equals the rate of change, the y-intercept (b) is the value of the function at $x = 0$... (MP1, MP5)

8.3.7.4 Represent linear functions with tables, verbal descriptions, symbols, equations and graphs. Translate from one representation to another. (MP5)

8.3.7.2 Analyze visual patterns to distinguish between linear and non-linear patterns. For linear patterns, describe how a pattern is changing, name the n th term and write an equation to generalize the n th term. (MP1, MP7)

8.2.4.2 Given a line on a coordinate plane and the coordinates of a point not on the line, find lines through that point that are parallel and perpendicular to the given line, using graphing technology or hand drawn graphs. (MP7)

8.3.6.5 Represent linear relationships in point-slope and standard form and convert to slope-intercept form. (MP7)

8.3.6.6 Reason abstractly, involving variables as a point, slope or intercept, to compare general forms of linear relationships, including point-point, point-slope, standard form and slope-intercept form. (MP7)

8.3.7.5 Explain how changes to the values m or b in the linear function $f(x) = mx + b$ affect the graph of the function. Use graphing technology to examine these effects. Recognize that the graph of the linear equation $y = mx + b$ comes from b units translation of $y = mx$ graph. (MP1, MP5)

8.3.7.3 Recognize that a function is a rule that assigns each input to exactly one output. ... Recognize that the graph of a function is the set of ordered pairs consisting of an input and the corresponding output. Use functional notation, such as $f(x)$, to represent such relationships. (MP4, MP7)
8.3.7.4 Represent linear functions with tables, verbal descriptions, symbols, equations and graphs. Translate from one representation to another. (MP5)
8.3.7.2 Analyze visual patterns to distinguish between linear and non-linear patterns. For linear patterns, describe how a pattern is changing, name the n th term and write an equation to generalize the n th term. (MP1, MP7)
8.3.5.1 Classify real numbers as rational or irrational. Know that when a square root of a positive integer is not an integer, then it is irrational. (MP1, MP7)
8.3.5.2 Use rational approximations of irrational numbers to compare the size of irrational numbers and locate them approximately on a number line. Estimate the value of expressions involving irrational numbers. (MP2, MP6)
8.3.5.2 Use rational approximations of irrational numbers to compare the size of irrational numbers and locate them approximately on a number line. Estimate the value of expressions involving irrational numbers. (MP2, MP6)
(No corresponding Minnesota Grade 8 benchmark)
(No corresponding Minnesota Grade 8 benchmark)
(No corresponding Minnesota Grade 8 benchmark)

(No corresponding Minnesota Grade 8 benchmark)

(No corresponding Minnesota Grade 8 benchmark)

8.2.3.1 Informally justify the Pythagorean Theorem and its converse by using measurements, diagrams or computer software. (MP2, MP3)

8.2.3.2 Apply the Pythagorean Theorem to solve multi-step contextual situations by determining unknown side lengths in right triangles in both two- and three-dimensional shapes. (MP4)

8.2.3.3 Determine the distance between two points ... Use the Pythagorean Theorem to find the distance between any two points in a coordinate system. (MP7)

8.2.3.2 Apply the Pythagorean Theorem to solve multi-step contextual situations by determining unknown side lengths in right triangles in both two- and three-dimensional shapes. (MP4)

8.2.3.3 Determine the distance between two points ... Use the Pythagorean Theorem to find the distance between any two points in a coordinate system. (MP7)

8.1.1.1 Formulate statistical investigative questions, such as questions about variation, the differences between groups and associations between two numerical variables. (MP3)

8.1.1.5 Create data visualizations about a data set. Organize and present the data in appropriate ways, including in tables and scatter plots, and incorporate other relevant information that helps to tell a story and support a claim about the data. (MP1, MP6)

8.1.1.2 Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association ... (MP5, MP8)
8.1.1.3 Identify when to use straight lines to model relationships ... informally fit a straight line and assess the model fit by judging the closeness of the data points to the line. (MP5, MP6)
8.1.1.2 Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association and nonlinear association. (MP5, MP8)
8.1.1.4 Use the equation of a linear model to solve situations in the context of bivariate measurement data. Interpret the slope and intercepts in context of the variables. (MP4, MP6)
8.1.1.6 Compare and communicate competing explanations for data trends observed, considering the reasonableness of the model's predictions and correlation versus causation. (MP3, MP6)
(No corresponding Minnesota Grade 8 benchmark)
(No corresponding Minnesota Grade 8 benchmark)
8.3.7.7 Recognize that an arithmetic sequence is a linear function that can be expressed in the form $f(x) = mx + b$, where $x = 0, 1, 2, 3, \dots$ (MP1, MP8)
8.3.7.8 Recognize that a geometric sequence is a nonlinear function that can be expressed in the form $f(x) = a(b)^x$, where $x = 0, 1, 2, 3, \dots$ (MP1, MP8)

8.3.7.9 Represent arithmetic and geometric sequences using equations, tables, graphs and verbal descriptions and use them to solve situations. (MP4)

58.1%
19.4%
9.7%
0.0%
12.9%
100.0%

4
3

Alignment	Commentary
Strong	Near-identical: applying the properties of (positive and negative) integer exponents to generate equivalent expressions.
Strong	Both simplify/generate equivalent expressions using properties (8.3.6.1) and evaluate algebraic expressions at given values (8.3.6.2).
Partial	MN uses the square-root/square relationship (covering the $x^2 = p$ case), but does not address $x^3 = p$ or evaluating cube roots of perfect cubes as Utah does.
Strong	Both express very large/small quantities as a single digit times a power of ten and compare their relative magnitude (how many times as much one is than the other).
Partial	MN expresses/compares (8.3.5.4) and multiplies/divides (8.3.5.5) in scientific notation, but does not explicitly include addition and subtraction, whereas Utah requires all four operations.

Strong	Together these cover Utah 8.A.8: solving single-variable equations (8.3.6.3), linear inequalities (8.3.6.7), and absolute-value equations/inequalities (8.3.6.8), all with justification.
Strong	Both solve systems of two linear equations graphically (point of intersection) and identify systems with zero, one, or infinitely many solutions (8.2.4.3).
Strong	Both use similar triangles to explain why slope is constant on a non-vertical line and connect proportional relationships to slope/unit rate.

Strong	Both represent linear relationships across tables, graphs, and equations and interpret slope and intercepts.
Strong	Both determine and interpret the rate of change (slope) and the initial value (y-intercept, the value at $x = 0$) of a linear function from its representations.
Partial	Both distinguish linear from non-linear behavior, but MN frames it through visual patterns (and the n th term), while Utah compares properties of linear vs. nonlinear functions across multiple representations more broadly.
Different Utah grade level	Finding lines parallel and perpendicular to a given line through a point is a Minnesota Grade 8 benchmark with no Utah Grade 8 counterpart. Utah covers this content in Secondary 2.
Minnesota only	Working with multiple algebraic forms of a line (point-slope, standard) and converting among them is emphasized in MN; Utah Grade 8 represents linear relationships with equations but does not call out these specific forms.
Minnesota only	Comparing the general algebraic forms of linear relationships is a Minnesota benchmark with no direct Utah Grade 8 counterpart.
Minnesota only	Analyzing how changing the parameters m or b transforms the graph of a line is a Minnesota benchmark; Utah Grade 8 interprets slope/intercept but does not isolate this parameter-effect standard.

Strong	Both establish the defining property of a function (each input assigned exactly one output), which is the basis for arguing whether a relation is a function.
Strong	Both construct/represent a linear function from verbal descriptions, tables, and graphs and move among representations.
Partial	MN distinguishes linear from non-linear patterns, but does not address qualitative graph features such as increasing/decreasing intervals, maxima/minima, or sketching a graph from a verbal description, which is the focus of Utah 8.F.4.
Strong	Both compare/contrast irrational and rational numbers to characterize the properties of irrational numbers.
Strong	Near-identical: using rational approximations of irrational numbers and a number line to compare their values.
Strong	MN 8.3.5.2 explicitly includes estimating the value of expressions involving irrational numbers, matching Utah 8.NS.3.
Utah only	Justifying the closure properties of rational/irrational sums and products is not addressed in the Minnesota Grade 8 benchmarks.
Different grade level	Defining congruence through rigid transformations is not in Minnesota Grade 8; Minnesota addresses transformations and congruence at Grade 7 (7.2.4.1).
Different grade level	Defining similarity through transformations (including dilations) is not in Minnesota Grade 8; Minnesota develops similarity at Grade 7 (7.2.4.2).

Different grade level	Distinguishing congruence from similarity in terms of transformations is not in Minnesota Grade 8; Minnesota distinguishes similarity from congruency at Grade 7 (7.2.4.2).
Utah only	Angle relationships for parallel lines cut by a transversal and the triangle angle-sum/exterior-angle relationships are not addressed in the Minnesota Grade 8 benchmarks.
Strong	Both justify/explain the Pythagorean Theorem (8.2.3.1), apply it to right triangles (8.2.3.2), and use it to find distance between coordinate points (8.2.3.3).
Partial	MN covers the right-triangle and distance problems, but Minnesota Grade 8 has no benchmark for the volume of cones, cylinders, and spheres (Minnesota treats cylinder volume at Grade 7).
Strong	Both formulate statistical investigative questions aimed at patterns of association between two variables. MN specifies numerical variables; Utah also includes categorical.
Partial	MN organizes and presents data in tables and scatter plots, which overlaps Utah's organizing step, but does not emphasize selecting tools to identify/generate/collect data sets as the focus of 8.D.2.

Strong	Near-identical: constructing scatter plots and informally fitting a line, assessing fit by the closeness of data points to the line.
Strong	Near-identical list of association patterns: clustering, outliers, positive/negative, and linear/nonlinear association.
Strong	Both use the linear model equation to solve bivariate problems and interpret slope/intercept (8.1.1.4) and construct/communicate reasoned arguments about the data (8.1.1.6).
Utah only	Two-way tables and relative frequencies for categorical bivariate data are not addressed in the Minnesota Grade 8 benchmarks, which focus on quantitative (scatter-plot) bivariate data.
Utah only	Analyzing associations in categorical bivariate data using relative frequencies is not addressed in the Minnesota Grade 8 benchmarks.
Different Utah grade level	Arithmetic sequences (as linear functions) are a Minnesota Grade 8 topic; Utah covers sequences in S1.
Different Utah grade level	Geometric sequences (as nonlinear/exponential functions) are a Minnesota Grade 8 topic with no Utah Grade 8 counterpart. Utah covers sequences in S1.

Different Utah grade level	Representing and applying arithmetic and geometric sequences is a Minnesota benchmark; Utah does not address sequences at Grade 8. ; Utah covers sequences in S1.
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Utah strand	Total Utah standards	Strong
#A standards	9	7
#F standards	5	3
#NS standards	4	3
#G standards	6	1
#D standards	7	4
Total	31	18

Partial	Weak	Different MN grade-level	Utah only	Different Utah grade level
2	0	0	0	0
2	0	0	0	1
0	0	0	1	0
1	0	3	1	0
1	0	0	2	3
6	0	3	4	4

MN only

0
3
0
0
0

3

Grade	Strand	Total Utah standards	Strong	Partial
K	#CC standards	8	2	5
K	#OA standards	8	5	1
K	#NBT standards	1	0	1
K	#MG standards	5	4	0
K	#D standards	4	1	3
1	#OA standards	8	5	1
1	#NBT standards	7	3	2
1	#MG standards	7	3	2
1	#D standards	4	2	2
2	#NBT standards	4	3	0
2	#OA standards	4	2	1
2	#MG standards	10	7	1
2	#D standards	4	2	2
3	#OA standards	7	4	2
3	#NBT standards	4	3	0
3	#NF standards	4	2	2
3	#MG standards	8	1	4
3	#D standards	4	4	0
4	#OA standards	6	1	3
4	#NBT standards	7	4	1
4	#NF standards	8	4	2
4	#MG standards	6	4	0
4	#D standards	4	1	3
5	#OA standards	3	1	1
5	#NBT standards	10	4	2
5	#NF standards	5	1	3
5	#MG standards	4	3	0
5	#D standards	4	0	4
6	#A standards	6	1	4
6	#NS standards	7	4	3
6	#RP standards	5	3	2
6	#G standards	4	3	1
6	#D standards	4	2	2
7	#RP standards	7	4	3
7	#A standards	4	2	2
7	#NS standards	4	3	1
7	#G standards	5	0	3
7	#D standards	8	6	2
8	#A standards	9	7	2
8	#F standards	5	3	2

8	#NS standards	4	3	0
8	#G standards	6	1	1
8	#D standards	7	4	1
		243	122	77

Utah standards			MN stan
Weak	Utah standard appears in different MN grade level	Utah only/no MN counterpart	MN standard appears in other Utah grade level
0	0	1	1
1	0	1	0
0	0	0	0
0	0	1	0
0	0	0	0
1	0	1	0
1	0	1	0
1	0	1	2
0	0	0	0
1	0	0	0
0	0	1	0
0	0	2	0
0	0	0	1
1	0	0	0
1	0	0	0
0	0	0	0
0	1	2	0
0	0	0	0
1	0	1	0
2	0	0	0
1	0	1	0
1	0	1	0
0	0	0	0
0	1	0	0
1	0	3	0
1	0	0	0
0	0	1	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	2	2
0	0	0	0
0	0	0	0
0	0	0	1

0
0
0

15

0
3
0

5

1
1
2

24

0
0
3

11

0
0
0

36

Statistics & Data Science total

Grade	Strand	Total Utah standards	Strong	Partial	Weak
K	#CC standards	8	2	5	0
K	#NBT standards	1	0	1	0
1	#NBT standards	7	3	2	1
2	#NBT standards	7	5	2	0
3	#NBT standards	4	3	0	1
3	#NF standards	4	2	2	0
4	#NBT standards	7	4	1	2
4	#NF standards	8	4	2	1
5	#NBT standards	10	4	2	1
5	#NF standards	5	1	3	1
6	#NS standards	7	4	3	0
7	#NS standards	4	3	1	0
8	#NS standards	4	3	0	0
		76	38	24	7
6	#RP standards	5	3	2	0
7	#RP standards	7	4	3	0
		12	7	5	0
K	#OA standards	4	4	0	0
1	#OA standards	8	5	1	1
2	#OA standards	4	2	1	0
3	#OA standards	7	4	2	1
4	#OA standards	6	1	3	1
5	#OA standards	3	1	1	0
6	#A standards	6	1	4	1
7	#A standards	4	2	2	0
8	#A standards	9	7	2	0
		51	27	16	4
8	#F standards	5	3	2	0
		5	3	2	0
K	#MG standards	5	4	0	0
1	#MG standards	7	3	2	1
2	#MG standards	10	7	1	0
3	#MG standards	8	1	4	0
4	#MG standards	6	4	0	1
5	#MG standards	4	3	0	0
6	#G standards	4	3	1	0
7	#G standards	5	0	3	0
8	#G standards	6	1	1	0
		55	26	12	2
K	#D standards	4	1	3	0

1	#D standards	4	2	2	0
2	#D standards	4	2	2	0
3	#D standards	4	4	0	0
4	#D standards	4	1	3	0
5	#D standards	4	0	4	0
6	#D standards	4	2	2	0
7	#D standards	8	6	2	0
8	#D standards	7	4	1	0
		43	22	19	0

standards		MN standard
Utah standard appears in different MN grade level	Utah only/no MN counterpart	MN standard appears in other Utah grade level
0	1	1
0	0	0
0	1	0
0	0	1
0	0	0
0	0	0
0	0	0
0	1	0
0	3	0
0	0	0
0	0	0
0	0	1
0	1	0
0	7	3
0	0	0
0	0	0
0	0	0
0	0	0
0	1	0
0	1	0
0	0	0
0	1	0
1	0	0
0	0	0
0	0	0
0	0	0
1	3	0
0	0	1
0	0	1
0	1	0
0	1	2
0	2	0
1	2	0
0	1	0
0	1	0
0	0	0
0	2	2
3	1	0
4	11	4
0	0	0

0	0	0
0	0	1
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	2	3
0	2	4

ls
MN only/no Utah counterpart
2
0
2
2
3
1
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0
0
0
0
0
0
10
0
1
1
0
5
0
0
0
0
0
1
0
6
3
3
0
0
0
2
0
0
0
2
0
4
1

% of Utah Standards with Strong or PartialGrade Level Match to MN

82%

100%

84%

100%

69%

1
2
2
0
0
0
0
0
6



Domain	Topic
Algebra	Interpreting Equations & Their Components
Algebra	
Algebra	Solving Equations
Algebra	

Algebra	Algebraic Modeling
Algebra	
Algebra	
Algebra	
Functions	
Functions	

Functions	Functions Basics
Functions	
Functions	Functions and Sequences
Functions	
Functions	

Functions

Functions

Functions

Functions

Geometry

Comparing Linear and Exponential Functions

Geometry	
Geometry	Rigid Transformations
Geometry	
Geometry	
Geometry	Geometric Constructions

Geometry	Attirbutes of Shapes
Data Science	Data & Statistical Reasoning
Data Science	

Data Science	
Data Science	
Data Science	

Data Science	
Matrices & Vectors	Matrix Operations
Matrices & Vectors	
Matrices & Vectors	
Matrices & Vectors	Modeling with Matrices
Matrices & Vectors	
Matrices & Vectors	
Matrices & Vectors	Solving Systems with Matrices

Matrices & Vectors	Solving Systems with Matrices
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of Utah S1 Standards:
40

Utah

S1.A.1 Use the structure of linear expressions and exponential expressions with integer exponents to identify parts of the expression and interpret their meaning in context. Interpret complicated expressions (such as $P(1+r)^n$) by viewing one or more of their parts as a single entity. (MP 7)

S1.A.3 Use algebraic properties of equality as tools to rearrange formulas to isolate a quantity of interest. (MP 5)

S1.A.4 Solve linear equations and inequalities using algebraic tools, starting from the assumption that a solution exists. Communicate clear arguments for equations that do not have one unique solution and justify the results. Interpret solutions and use both inequality and interval notation. (MP 3, 5)

S1.A.5 Solve systems of linear equations using algebraic tools. Understand and justify how equations are manipulated while maintaining the consistency of the system. (MP 3, 5)

S1.A.2 Build symbolic models of linear equations and inequalities, and use them to solve problems in and out of context. (MP 3, 4)

S1.A.6 Interpret whether a solution of a system of linear equations and inequalities is viable or non-viable using graphic and analytic models. Use models of systems of linear equations and inequalities to interpret whether a solution is viable or non-viable. (MP 4)

S1.A.7 Build and use graphic models to analyze and solve systems of two linear equations as well as systems of one linear equation and one exponential equation in two variables and interpret their solutions. (MP 4)

S1.A.8 Build and use graphic models to show the solutions to a linear inequality in two variables as a half-plane, and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes. (MP 4)

S1.F.1 Construct and communicate clear arguments to justify whether a relation is a function. (MP 3)

S1.F.2 Understand the structure of function notation, if f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x . The graph of f is the graph of the equation $y = f(x)$. (MP 7)

S1.F.3 Evaluate functions for inputs in their domains and interpret statements that use function notation in terms of a context. (MP 2)

S1.F.5 Understand and interpret the features of a function represented graphically, numerically and symbolically using interval notation and inequalities by applying and removing context. Focus on these key features: domain, range, intervals of increase and/or decreasing, location of absolute maximum and/or absolute minimum, and intercepts. Build graphic models that satisfy given key features. (MP 2, 4)

S1.F.4 Build and use explicit and recursive equations to model arithmetic and geometric sequences using function notation. Describe and represent the domain of these models as a subset of the integers. (MP 4, 7)

S1.F.8 Build a function that models linear or exponential relationships. Appropriately use explicit and recursive rules to model these relationships and translate between the two forms. (MP 4)

S1.F.9 Construct arguments that use the structures and patterns of relationships to connect arithmetic sequences to linear functions and geometric sequences to exponential functions. (MP 3, 7)

S1.F.6 Build representations that show key features of linear and exponential functions expressed symbolically. Select and use appropriate tools to model with and without technology. (MP 4, 5)

S1.F.7 Compare and contrast the properties of linear and exponential functions (represented in different ways). Formulate and ask questions to highlight the similarities and differences between the functions. (MP 1)

S1.F.10 Use structures and patterns to identify the effect of k on the graph when replacing $f(x)$ by $f(x) + k$. Explore specific values of k for linear and exponential functions in and out of context. (MP 7)

S1.F.11 Communicate clear and reasonable arguments to distinguish between situations that can be modeled with linear functions, exponential functions, or neither. Connect the structure of linear and exponential functions with their parameters, ($y=mx+b$, $y=bx(a)$). Justify that a quantity increasing exponentially eventually exceeds a quantity increasing linearly. (MP 3, 7)

S1.G.1 Describe and represent the underlying structure of translations, rotations and reflections, in terms of angles, circles, perpendicular lines, parallel lines, and line segments. (MP 7)

S1.G.2 Construct and clearly communicate definitions of the rigid transformations to show that these transformations are functions that take points in the plane as inputs and give corresponding points as outputs. (MP 3)

S1.G.3 Select and use tools to strategically perform rigid transformations. Attend to precision when identifying and describing the transformation or the sequence of transformations to determine whether or not two figures are congruent. Understand that the image created from a rigid transformation or a sequence of rigid transformations is congruent to the pre-image. (MP 5, 6)

S1.G.4 Construct and communicate clear and reasonable arguments about reflection and rotational symmetries of parallelograms and regular polygons. Use reflections and rotations to informally justify attributes of parallelograms including rhombus, rectangles and squares. (MP 3)

S1.G.6 Construct, justify and communicate clear arguments that show how the criteria for triangle congruence (ASA, SAS, SSS) can be established using the definition of congruence in terms of rigid motions. (MP 3)

S1.G.5 Precisely construct geometric objects including equilateral triangle, rhombus, square, parallel line, perpendicular bisector, and angle bisector. Communicate clearly about the use of geometric construction tools and analyze the underlying structure of geometric objects as revealed by the tools. (MP 3)

S1.G.7 Justify whether or not a quadrilateral has the attributes of a square, rectangle, rhombus or parallelogram. Connect the Pythagorean Theorem to the distance formula and utilize slope along with distance as a means for justification. (MP 3)

S1.D.1 Ask statistical questions to investigate situations that can be explored using random samples from populations to make inferences about differences between two populations or associations between two quantitative variables. Explain and justify the distinction between correlation and causation. (MP 1, 3)

S1.D.2 Select the appropriate statistical tools to create a data collection plan. Collect and organize primary data for the statistical investigative question of interest or determine the validity that the data collected is useful to answer the statistical question of interest when using secondary data. (MP 5)

S1.D.3 Compare two or more distributions with precision by selecting graphical displays (dot plots, histograms, and modified box plots to show outliers) that highlight features of interest. Analyze data by comparing measures of center (mean and median) and measures of variability (range, inter-quartile range and standard deviation) that are appropriate for the shape (skew, symmetry, outliers, modes) of the data distribution. Recognize how standard deviation builds on the mean absolute deviation and is another measure of how data values vary in a distribution. (MP 6)

S1.D.4 Analyze data to explore the association between two quantitative variables by using a scatterplot to determine and describe patterns of association such as clustering, positive or negative association, linear or nonlinear association, and effects of outliers. Use technology to find and interpret the correlation coefficient and use it to assess the strength of the linear relationship. Attend to precision and reasonableness with calculations. (MP 6)

S1.D.5 Analyze and use statistical evidence to evaluate results and answer statistical investigative questions about the differences between two or more population parameters. Identify ways to refine the question, data collection, visualization, or analysis. (MP 8)

S1.D.6 Justify statistical reasoning to evaluate results from analyses to answer the statistical investigative question about associations between two quantitative variables. For scatter plots that suggest a linear association, represent the relationship with a line of best fit and use the model of the linear equation to solve problems, including interpreting the slope and intercept in the context of the data. Justify statistical reasoning and results to others in a variety of formats including verbal, written, and visual. (MP 3, 8)

S1.M.1 Add, subtract, and multiply matrices of appropriate dimensions using algebraic tools for smaller matrices and technology for larger matrices. (MP 5)

S1.M.3 Communicate understanding that, unlike multiplication of numbers, matrix multiplication for square matrices is not a commutative operation, but still satisfies the associative and distributive properties. (MP 3)

S1.M.4 Communicate understanding that the zero and identity matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers. The determinant of a square matrix is nonzero if and only if the matrix has a multiplicative inverse. (MP 3)

S1.M.2 Use matrices to represent and manipulate data (e.g., to represent payoffs or incidences relationships in a network). Multiply matrices by scalars to produce new matrices and make sense of this product by connecting it with and without a context. (MP 2, 4)

S1.M.5 Use 2×2 matrices to model transformations of the plane, and interpret the absolute value of the determinant in terms of area. (MP 4, 7)

S1.M.6 Model a system of linear equations as a single-matrix equation in a vector variable. (MP 4)

S1.M.7 Solve systems of linear equations up to three variables using matrix row reduction and technology as tools. (MP 5)

S1.M.8 Find the inverse of a matrix if it exists using technology or algebraic tools, and use the inverse to solve systems of linear equations (using technology for matrices of dimensions 3x3 or greater). (MP 5)

Strong alignment
Partial alignment
Different grade level
Weak alignment
Utah only--No MN analog

Different Utah grade
Minnesota only

Minnesota

9.3.5.8 Use the structure of an expression to write it in multiple ways. (MP7)

9.3.7.8 Define the compounding of interest n times per year according to a recursive formula. Compare the recursive definition of interest to the recursive definition of a geometric sequence $t(n) = r(t(n - 1))$. Compare the interest formula to the general form of an exponential function $y = a(b)^x$. Explain the purpose of each part of the interest formula. (MP4, MP5)

9.3.5.7 Use the structure of an expression, equation and/or formula to create an equivalent form that is more helpful given the situation. Rearrange formulas to highlight a quantity of interest, using the same reasoning in solving equations. (MP6)

9.3.5.6 Assess the reasonableness of a solution in its given context, including financial literacy applications. Compare the solution to appropriate graphical or numerical estimates. Interpret a solution in the original context. (MP3)

9.3.5.7 Use the structure of an expression, equation and/or formula to create an equivalent form that is more helpful given the situation. Rearrange formulas to highlight a quantity of interest, using the same reasoning in solving equations. (MP6)

9.3.7.1 Represent and solve situations in various contexts, including financial literacy, using systems of linear equations, systems of linear inequalities and exponential and quadratic functions. (MP4)

9.3.5.7 Use the structure of an expression, equation and/or formula to create an equivalent form that is more helpful given the situation. Rearrange formulas to highlight a quantity of interest, using the same reasoning in solving equations. (MP6)

9.3.7.1 Represent and solve situations in various contexts, including financial literacy, using systems of linear equations, systems of linear inequalities and exponential and quadratic functions. (MP4)

9.3.5.6 Assess the reasonableness of a solution in its given context, including financial literacy applications. Compare the solution to appropriate graphical or numerical estimates. Interpret a solution in the original context. (MP3)

9.3.7.1 Represent and solve situations in various contexts, including financial literacy, using systems of linear equations, systems of linear inequalities and exponential and quadratic functions. (MP4)

9.3.7.2 Translate between graphs of quadratic, exponential and other functions (including absolute value, rational and polynomial), tables and symbolic representations. Sketch graphs and use graphing technology to graph functions. (MP5)

9.3.7.1 Represent and solve situations in various contexts, including financial literacy, using systems of linear equations, systems of linear inequalities and exponential and quadratic functions. (MP4)

9.3.7.2 Translate between graphs of quadratic, exponential and other functions (including absolute value, rational and polynomial), tables and symbolic representations. Sketch graphs and use graphing technology to graph functions. (MP5)

9.3.7.10 Use the concept of a function as a connection between inputs and outputs to find function values and use function notation. (MP2)

9.3.7.10 Use the concept of a function as a connection between inputs and outputs to find function values and use function notation. (MP2)

9.3.7.10 Use the concept of a function as a connection between inputs and outputs to find function values and use function notation. (MP2)

9.3.7.7 Describe the graph of a function using key features such as intercepts, maxima/minima, intervals of increase and decrease and end behavior. Draw conclusions from graphs of functions and other relations. (MP3)

9.3.7.6 Find the domain and range of functions defined symbolically, graphically or in a context, including piecewise and step functions. Express solutions and recognize that some answers obtained may not be valid, including cases where the function inputs are discrete instead of continuous. (MP4)

9.3.7.4

Express the terms in an arithmetic or geometric sequence recursively and by giving an explicit formula. (MP8)

9.3.7.5

Express recursive patterns using recursive formulas. Calculate sequences defined by recursive formulas. (MP8)

9.3.7.4

Express the terms in an arithmetic or geometric sequence recursively and by giving an explicit formula. (MP8)

9.3.7.1

Represent and solve situations in various contexts, including financial literacy, using systems of linear equations, systems of linear inequalities and exponential and quadratic functions. (MP4)

9.3.7.8

Define the compounding of interest n times per year according to a recursive formula. Compare the recursive definition of interest to the recursive definition of a geometric sequence $t(n) = r(t(n - 1))$. Compare the interest formula to the general form of an exponential function $y = a(b)^x$. Explain the purpose of each part of the interest formula. (MP4, MP5)

9.3.7.2

Translate between graphs of quadratic, exponential and other functions (including absolute value, rational and polynomial), tables and symbolic representations. Sketch graphs and use graphing technology to graph functions. (MP5)

9.3.7.2

Translate between graphs of quadratic, exponential and other functions (including absolute value, rational and polynomial), tables and symbolic representations. Sketch graphs and use graphing technology to graph functions. (MP5)

9.1.1.11

Identify, create and compare statistical models with linear and exponential functions, including linear regression. Assess the reasonableness of model fit using residuals and correlation coefficients. (MP4)

9.3.7.3

Determine how vertical/ horizontal reflecting, translating and scaling affect the symbolic and graphical forms of a function. Use graphing technology to examine transformations. (MP3)

9.3.7.1

Represent and solve situations in various contexts, including financial literacy, using systems of linear equations, systems of linear inequalities and exponential and quadratic functions. (MP4)

9.1.1.11

Identify, create and compare statistical models with linear and exponential functions, including linear regression. Assess the reasonableness of model fit using residuals and correlation coefficients. (MP4)

9.2.4.13

Create and compare rigid and non-rigid transformations, and connect the preimage and image to congruence. (MP2)

9.2.4.14

Describe the steps used to show various sequences of transformations, applying reflections, rotations, translations and/or dilations of geometric figures that map one figure onto the other. (MP8)

9.2.4.13

Create and compare rigid and non-rigid transformations, and connect the preimage and image to congruence. (MP2)

9.2.4.13

Create and compare rigid and non-rigid transformations, and connect the preimage and image to congruence. (MP2)

9.2.4.14

Describe the steps used to show various sequences of transformations, applying reflections, rotations, translations and/or dilations of geometric figures that map one figure onto the other. (MP8)

9.2.4.3 Apply properties such as interior and exterior angles and parallel and perpendicular sides to define, classify and solve situations involving regular and irregular polygons. (MP1)

9.2.4.13 Create and compare rigid and non-rigid transformations, and connect the preimage and image to congruence. (MP2)

9.2.4.4 Apply properties of congruent figures to solve situations and logically justify results. (MP1, MP3)

9.2.4.7 Construct logical arguments using axioms, definitions, theorems and postulates that clearly justify the reasoning. (MP3, MP6)

9.2.4.13 Create and compare rigid and non-rigid transformations, and connect the preimage and image to congruence. (MP2)

9.2.4.12

Make geometric constructions with a variety of tools, including dynamic geometric technology, to examine theorems, make and test conjectures, represent transformations and develop mathematical reasoning skills in multi-step situations. (MP5)

9.2.3.1

Apply the Pythagorean Theorem and distance formula to compute perimeters of polygons and areas of right triangles and rectangles on coordinate planes. (MP1)

9.3.6.6

Compare the equation of a circle, the Pythagorean Theorem and the Distance Formula. Complete the square to find the center and radius of a circle given an equation. (MP2, MP8)

9.1.1.1 Formulate statistical investigative questions and pose hypotheses. These include questions about variation or the differences between groups, associations between quantitative and categorical variables or pairing together multiple analyses. (MP1, MP3)

9.1.1.5 Analyze and explain when arguments based on data confuse correlation and causation. (MP3)

9.1.1.8 Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples or simulated samples of the same size to gauge the variation in estimates or predictions. (MP1, MP4)

9.1.1.2 Explain how choices concerning data collection methods can affect the quality, size, speed, accessibility and cost of the data. (MP3)

9.1.1.4 Explain the purposes of and differences among sample surveys, experiments and observational studies. Explain whether randomization in each allows for conclusions of causation and/or generalization of a population. (MP3)

9.1.1.14 Evaluate reports based on published data by identifying the source of the data, the design of the study and the way the data are analyzed and displayed. (MP3)

9.1.1.9 Use statistics appropriate to the shape of the data distribution to compare the center and spread of two or more data sets. (MP4)

9.1.1.10 Create and analyze data displays, including scatter plots, histograms and boxplots using technology. (MP1)

9.1.1.13 Analyze and interpret data using various measures, such as difference in shapes, center and spread to draw conclusions, identify trends and describe relationships, accounting for possible effects of extreme data points (outliers). (MP1)

9.1.1.6 Compute using technology or estimate the correlation coefficient of a linear model. Interpret the linear model in the context of the data. (MP5, MP6)

9.1.1.10 Create and analyze data displays, including scatter plots, histograms and boxplots using technology. (MP1)

9.1.1.11 Identify, create and compare statistical models with linear and exponential functions, including linear regression. Assess the reasonableness of model fit using residuals and correlation coefficients. (MP4)

9.1.1.8 Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples or simulated samples of the same size to gauge the variation in estimates or predictions. (MP1, MP4)

9.1.1.9 Use statistics appropriate to the shape of the data distribution to compare the center and spread of two or more data sets. (MP4)

9.1.1.12 Examine and discuss competing explanations for data trends observed such as confounding variables. Respond to competing arguments or interpretations of the data of different community groups, paying careful attention to what conclusions the data supports. (MP3, MP6)

9.1.1.6 Compute using technology or estimate the correlation coefficient of a linear model. Interpret the linear model in the context of the data. (MP5, MP6)

9.1.1.11 Identify, create and compare statistical models with linear and exponential functions, including linear regression. Assess the reasonableness of model fit using residuals and correlation coefficients. (MP4)

9.3.5.4 Use matrices to represent and manipulate data and interpret the results in context. Add, subtract and multiply matrices of appropriate dimensions. Multiply matrices by scalars. (MP4, MP5)

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(No corresponding Minnesota Grades 9–11 benchmark)

9.3.5.4 Use matrices to represent and manipulate data and interpret the results in context. Add, subtract and multiply matrices of appropriate dimensions. Multiply matrices by scalars. (MP4, MP5)

(No corresponding Minnesota Grades 9–11 benchmark)

(No corresponding Minnesota Grades 9–11 benchmark)

9.3.7.1 Represent and solve situations in various contexts, including financial literacy, using systems of linear equations, systems of linear inequalities and exponential and quadratic functions. (MP4)

(No corresponding Minnesota Grades 9–11 benchmark)

37.5%
25.0%
12.5%
15.0%
10.0%
100.0%

0
0

Alignment	Commentary
Partial	Both expect students to work with the structure of expressions. MN 9.3.5.8 covers using expression structure (write in multiple ways), and 9.3.7.8 explicitly interprets the parts of a compound-interest expression analogous to Utah's $P(1+r)^n$. However, MN has no single benchmark requiring students to identify parts of linear/exponential expressions and interpret their meaning in context as a general skill (CCSS A-SSE.1), so the match is partial.
Strong	Near-direct match. Both require rearranging formulas to isolate/highlight a quantity of interest using the reasoning of equation solving (CCSS A-CED.4). Wording and intent are essentially equivalent.
Different grade level	The core skill—solving linear equations and inequalities—is completed in MN Grade 8 (Algebra 1) and is not a stated Grades 9–11 benchmark. Within the high school band only the interpretation/reasoning aspects (interpret solutions in context, reason about equivalent forms) are partially captured by 9.3.5.6 and 9.3.5.7. MN does not address one/no/infinite solution cases or interval notation here.
Weak	Both address solving systems of linear equations. MN frames the work as representing and solving contextual situations with systems, whereas Utah emphasizes algebraic solution methods and justifying that manipulations preserve the solution set (consistency). The explicit justification-of-equivalence focus in the UT standard is a significant difference.

Weak	While both describe using equations to solve problems, the connection is extremely broad and neither standard addresses the specifics of the other.
Partial	Utah's viability/non-viability judgment combines MN's solving of systems (9.3.7.1) with MN's reasonableness-of-solution-in-context idea (9.3.5.6). MN covers both pieces but does not use the explicit "viable/non-viable" framing or pair graphic and analytic models for that judgment.
Partial	MN covers solving systems (9.3.7.1) and graphing linear/exponential functions (9.3.7.2), so the graphical analysis of linear and linear-exponential systems is supported. However, no single MN benchmark explicitly calls for solving a system of one linear and one exponential equation graphically, so the match is partial.
Partial	MN includes systems of linear inequalities (9.3.7.1) and graphing of functions/relations (9.3.7.2), which supports graphing inequality solution sets. MN does not state the explicit half-plane representation of a two-variable inequality or the intersection-of-half-planes interpretation, so coverage is partial.
Different grade level	MN 9.3.7.10 states the input-output definition of a function, which underlies Utah's standard, but MN does not require students to determine and justify whether a given relation is a function. That determination is treated earlier (MN Grade 8) and is not an explicit Grades 9–11 benchmark.
Strong	Both establish the input-output meaning of function notation, that $f(x)$ is the output for input x . MN 9.3.7.10 directly addresses understanding and using function notation; the only Utah element MN leaves implicit is the graph of f being the graph of $y = f(x)$.

Strong	Direct match. MN 9.3.7.10 requires finding function values (evaluating) and using function notation, which is the substance of Utah Sl.F.3; interpreting notation in context is a natural extension of the same benchmark.
Strong	Strong match across the listed key features. MN 9.3.7.7 covers intercepts, maxima/minima, and intervals of increase/decrease, and 9.3.7.6 covers domain and range, together spanning Utah's focus features. Utah additionally asks students to build graphs satisfying given features, a small element MN does not state explicitly.
Strong	Strong overlap. MN 9.3.7.4 explicitly requires both recursive and explicit forms for arithmetic and geometric sequences, matching Utah's core expectation; 9.3.7.5 reinforces recursive formulas. Utah's added detail (domain as a subset of the integers) is not stated in MN but does not change the strong content match.
Partial	MN 9.3.7.4 captures translating between recursive and explicit forms (in the sequence setting), and 9.3.7.1 captures modeling situations with exponential functions. Together they overlap Utah's intent, but MN does not frame building linear/exponential models and translating between explicit and recursive rules as a single function-modeling benchmark, so the match is partial.
Different grade level	The geometric-sequence-to-exponential-function connection is present in MN 9.3.7.8 (linking a geometric sequence to $y = a(b)^x$). The parallel arithmetic-sequence-to-linear-function connection, however, is a MN Grade 8 standard (8.3.7.9) and is not restated in the Grades 9–11 band, so only half of Utah's connection is matched at the high school level.

Strong	MN 9.3.7.2 requires translating among symbolic, tabular and graphical representations of exponential and other functions using graphing technology, closely matching Utah's expectation to build representations of linear and exponential functions with and without technology.
Different grade level	MN works with both linear and exponential functions (9.3.7.2) and compares them as statistical models (9.1.1.11), but it has no Grades 9–11 benchmark that directly compares and contrasts the defining properties of the linear and exponential function families. That comparison is largely a MN Grade 8 expectation, so the high-school-band match is weak.
Strong	The vertical translation $f(x) + k$ that Utah targets is squarely within MN 9.3.7.3, which has students determine how translating (and reflecting/scaling) affects a function's graph and symbolic form. MN is broader (all transformations), so it fully encompasses Utah's narrower focus on $+k$ for linear and exponential functions.
Different grade level	MN models situations with linear and exponential functions (9.3.7.1, 9.1.1.11) but has no Grades 9–11 benchmark for distinguishing which family fits a situation (linear vs. exponential vs. neither) or for justifying that exponential growth eventually exceeds linear growth (CCSS F-LE.1, F-LE.3). These ideas sit in MN Grade 8, so the match is weak.
Partial	MN 9.2.4.13 and 9.2.4.14 address performing and describing rigid transformations (reflections, rotations, translations). However, Utah's specific expectation of describing the structure of these transformations in terms of angles, circles, and parallel/perpendicular lines/segments (the CCSS G-CO.4 precise-definition approach) is not stated in MN, so coverage is partial.

Partial	MN 9.2.4.13 has students create and compare rigid transformations and relate preimage to image, overlapping Utah's content. MN does not frame transformations as functions that take points as inputs and produce points as outputs, the definitional emphasis at the heart of Utah S1.G.2, so the match is partial.
Strong	Strong match. MN 9.2.4.13 explicitly connects preimage and image to congruence, and 9.2.4.14 has students describe sequences of transformations that map one figure onto another, which is exactly Utah's use of transformations to determine congruence and the idea that the image is congruent to the pre-image.
Weak	MN treats polygon properties (9.2.4.3) and transformations (9.2.4.13) separately, but has no benchmark using reflection/rotational symmetry to justify the attributes of parallelograms and regular polygons (CCSS G-CO.3). Utah's symmetry-based reasoning about quadrilaterals is therefore only weakly reflected in MN.
Weak	MN addresses congruent figures (9.2.4.4), logical argument from definitions/theorems (9.2.4.7), and connecting transformations to congruence (9.2.4.13). What MN does not state is the specific derivation of the ASA/SAS/SSS triangle-congruence criteria from the rigid-motion definition of congruence (CCSS G-CO.8), so the match is weak.
Strong	Both standards center on formal geometric constructions with tools. MN 9.2.4.12 is the constructions benchmark; Utah lists specific objects (equilateral triangle, bisectors, etc.) while MN states constructions generally, but the underlying expectation and reasoning purpose align strongly.

Partial	Utah's connection of the Pythagorean Theorem to the distance formula is matched by MN 9.2.3.1 and 9.3.6.6, and 9.2.3.1 places this work on the coordinate plane. However, MN has no explicit benchmark for classifying/justifying quadrilateral types using slope and distance (coordinate proof, CCSS G-GPE.4), so the alignment is partial.
Strong	Strong, multi-point match. MN 9.1.1.1 formulates statistical questions about differences between groups and associations; 9.1.1.5 addresses the correlation-versus-causation distinction; and 9.1.1.8 uses random samples to draw population inferences, together covering all components of Utah S1.D.1.
Partial	MN addresses choosing among data-collection methods and study designs (9.1.1.2, 9.1.1.4) and judging the validity of published/secondary data (9.1.1.14), overlapping Utah's intent. MN emphasizes explaining and evaluating data-collection choices rather than students executing a primary-data collection plan, so the match is partial.

Strong	Strong match. MN 9.1.1.9 compares center and spread of two or more data sets using statistics appropriate to distribution shape; 9.1.1.10 produces histograms and boxplots; and 9.1.1.13 interprets shape/center/spread accounting for outliers. Utah's note that standard deviation builds on mean absolute deviation is the only element MN does not restate.
Strong	Strong match. MN 9.1.1.10 covers scatterplots, 9.1.1.6 computes and interprets the correlation coefficient with technology, and 9.1.1.11 assesses strength/fit of a linear model using correlation coefficients—directly mirroring Utah's scatterplot-and-correlation analysis of bivariate data.
Partial	MN strongly supports comparing two or more populations and drawing/evaluating inferences (9.1.1.8, 9.1.1.9, 9.1.1.12). Utah's explicit emphasis on iteratively refining the question, data collection, visualization, or analysis (the statistical investigative cycle) is only loosely reflected in MN, so the overall match is partial.

Strong	Strong match. MN 9.1.1.11 fits linear (regression) models to bivariate data and assesses fit, and 9.1.1.6 interprets the linear model in the context of the data, capturing Utah's line-of-best-fit, problem solving, and interpretation of slope/intercept in context.
Strong	Direct match. MN 9.3.5.4 explicitly requires adding, subtracting, and multiplying matrices of appropriate dimensions, the core of Utah S1.M.1; Utah only adds the practical small-vs-large (tools vs technology) distinction.
Weak	MN includes matrix multiplication (9.3.5.4) but says nothing about the algebraic properties of that operation. Utah's specific focus (non-commutativity of matrix multiplication and the associative/distributive properties) has no counterpart in the MN Grades 9–11 standards, so the match is weak.
Utah only	MN's only matrix benchmark (9.3.5.4) is limited to representing data and performing addition, subtraction, scalar and matrix multiplication. Zero/identity matrices, determinants, and the determinant–invertibility relationship are not addressed anywhere in the MN Grades 9–11 standards.
Strong	Direct match. MN 9.3.5.4 covers using matrices to represent and manipulate data, interpreting results in context, and multiplying matrices by scalars—all central elements of Utah S1.M.2.
Utah only	Using matrices to model plane transformations and interpreting the determinant as an area scale factor are not present in the MN Grades 9–11 standards (MN's geometric transformations work, e.g. 9.2.4.13–14, is not done with matrices, and determinants are absent).
Utah only	MN solves systems of linear equations (9.3.7.1) but never represents a system as a single matrix equation in a vector variable. The matrix-equation formulation has no MN Grades 9–11 counterpart.
Weak	The general goal of solving systems of linear equations is present in MN 9.3.7.1, but Utah's specific method—matrix row reduction for systems in up to three variables—is not part of the MN Grades 9–11 standards, so only the broad objective overlaps.

Utah only

Matrix inverses and using an inverse matrix to solve linear systems are not addressed anywhere in the MN Grades 9–11 standards, whose matrix content stops at addition, subtraction, scalar and matrix multiplication (9.3.5.4).

	Utah strand	Total Utah standards
8	#A standards	8
11	#F standards	11
7	#G standards	7
6	#D standards	6
8	#MV standards	8
40	Total	40

			Different Minnesota grade- level	Utah only	Different Utah grade level
Strong	Partial	Weak			
1	4	2	1	0	0
6	1	0	4	0	0
2	3	2	0	0	0
4	2	0	0	0	0
2	0	2	0	4	0
15	10	6	5	4	0

Minnesota
only

0

0

0

0

0

0

Domain	Topic
Algebra	Linear & Quadratic Expressions & Equations
Algebra	
Algebra	
Algebra	
Algebra	
Functions	

Functions

Functions

Functions

Functions

Functions

Functions

Features of Functions

Modeling with Functions

Functions	
Number Systems & Quantities	Rational Exponents
Number Systems & Quantities	
Number Systems & Quantities	Complex Numbers
Number Systems & Quantities	
Number Systems & Quantities	
Number Systems & Quantities	
Number Systems & Quantities	
Number Systems & Quantities	

Geometry	Geometric Proofs
Geometry	Similarity & Dilations
Geometry	Trigonometry & Triangle Similarity
Geometry	
Geometry	
Geometry	

Geometry	Circles
Geometry	
Geometry	
Geometry	
Geometry	Area & Volume
Geometry	
Geometry	Conic Sections
Geometry	

Data Science	
Data Science	
Data Science	
Data Science	
	Data & Statistical Reasoning
Matrices & Vectors	Vectors
Matrices & Vectors	

Matrices & Vectors	
Matrices & Vectors	
Matrices & Vectors	

of Utah S2 Standards:

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Utah

S2.A.1 Use the structure of quadratic and exponential expressions by identifying parts of the expression and interpret in context (ie. Use vertex form of a quadratic to identify the maximum height of an object flying through the air). Use algebraic tools to produce equivalent forms that reveal different properties. (MP 2, 5, 7)

S2.A.2 Use addition, subtraction and multiplication to build new linear and quadratic functions. (MP 4)

S2.A.3 Build symbolic models of linear and quadratic equations and inequalities, and use them to solve problems in and out of context. (MP 3, 4)

S2.A.4 Select and use algebraic and technologic tools to strategically solve quadratic equations and inequalities in one variable. Algebraic tools include taking square roots, completing the square, the quadratic formula, and factoring. (MP 5)

S2.A.5 Select and use algebraic and technologic tools to strategically solve a system of equations consisting of a linear equation and a quadratic equation in two variables. Algebraic tools, including factoring and the quadratic formula, should be used in simpler cases, and technologic tools in more complicated cases. (MP 5)

S2.F.1 Understand and interpret the features of a function represented graphically, numerically and symbolically using interval notation and inequalities by applying and removing context. Focus on these key features: domain, range, intervals of increase and/or decrease, location of absolute maximum and/or absolute minimum, and intercepts. Build graphic models that satisfy given key features. (MP 2, 4)

S2.F.3 Build graphic representations that show key features of quadratic, linear, exponential, absolute value and piecewise functions expressed symbolically. Select and use appropriate tools to model with and without technology. (MP 4, 5)

S2.F.4 Compare and contrast the properties of quadratic, linear, exponential, absolute value and piecewise functions (represented in different ways), including zeros, extreme values, symmetry and percent rate, when appropriate. Formulate and ask questions to highlight the similarities and differences between function types. (MP 1)

S2.F.5 Select and use algebraic tools to create different but equivalent forms of functions that highlight different properties of the function. Contextualize and decontextualize these functions to interpret these properties. (MP 2, 5)

S2.F.7 Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(x+k)$ by exploring specific values of k for quadratic and absolute value functions in and out of context. Attend to precision of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are reasonable. (MP 3, 6)

S2.F.2 Determine the average rate of change of a function over a closed interval while attending to precision and reasonableness. Connect the average rate of change with context appropriately. (MP 2, 6)

S2.F.6 Build a function that models a quadratic relationship. Use structures and patterns to build an equation that models explicit reasoning, or a recursive process. Attend to the precision of notation and labeling while building and using these models. (MP 4, 6, 7)

S2.F.8 Communicate clear and reasonable arguments to distinguish between situations that can be modeled with quadratic, exponential, and linear functions. Interpret the structure of quadratic functions written in different forms with the features of their graphs. (MP 3, 7)

S2.NS.1 Extend understanding of the structure of integer exponent properties to rational exponents. (MP 8)

S2.NS.2 Use the properties of exponents as tools to rewrite expressions involving radicals and rational exponents in equivalent forms. (MP 5)

S2.NS.3 Use the Fundamental Theorem of Algebra to construct arguments that verify that the solutions to any quadratic equation will always be numbers within the set of complex numbers and will have the form $a + bi$ where a and b are real numbers. (MP 3)

S2.NS.4 Build and use models to solve quadratic equations with real coefficients that have complex solutions, rewriting $x^2 + 4$ as $(x + 2i)(x - 2i)$. (MP 4)

S2.NS.5 Find the conjugate of a complex number; use conjugates to find moduli and quotients of complex numbers. Represent the conjugate and moduli on the complex plane. (MP 7)

S2.NS.6 Represent complex numbers on the complex plane in rectangular form, and explain why the rectangular form of a given complex number represents the same number. (MP 3, 4)

S2.NS.7 Represent addition, subtraction, and multiplication geometrically on the complex plane; use properties of this representation for computation. (MP 4)

S2.G.1 Construct, justify and communicate clear and reasonable arguments to prove geometric theorems. Support refinement of reasoning by asking questions. Develop flexibility in creating logical arguments and proofs of various formats, including: narrative paragraphs, flow diagrams, two-column format, and diagrams without words. (MP 1, 3)

Proofs should focus on:

a. theorems about lines and angles; vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.

b. theorems about triangles; measures of interior angles of a triangle sum to 180° ; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.

c. theorems about parallelograms; opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals.

S2.G.2 Describe and represent the underlying structures and properties that define dilations and similar shapes. Use the structures and properties of dilation and similarity to solve problems. (MP 7)

S2.G.3 Build and use models that include congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures. Construct, justify and communicate a clear and reasonable proof of the Pythagorean Theorem using triangle similarity. (MP 3, 4)

S2.G.4 Describe and represent side ratios in right triangles based upon the underlying structure of similarity. Connect consistency across similar right triangles to definitions of trigonometric ratios for acute angles. (MP 7)

S2.G.5 Verify, justify and communicate the relationships that exist between trigonometric ratios and trigonometric identities. Keep the focus on the relationship between sine and cosine of complementary angles, the Pythagorean Identity, and the tangent ratio in terms of sine and cosine. (MP 3)

S2.G.6 Flexibly, accurately, and efficiently use trigonometric ratios and the Pythagorean Theorem to solve real-world and mathematical problems that can be modeled with right triangles. (MP 2, 4)

S2.G.7 Construct, justify and communicate a clear and reasonable argument that all circles are similar. Connect the underlying structures of similarity to relationships between angles, segments and arcs within circles. (MP 3, 7)

S2.G.8 Describe and represent structures and patterns between inscribed angles, radii, and chords. Relationships include the relationships between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle. (MP 7)

S2.G.9 Describe and represent, using similarity, the definition of a radian as the ratio of arc length to radius. Create a distinction between arc length and arc measure and be able to attend to precisions while relating each of these to radian measure or the formula for the area of a sector. (MP 6, 7)

S2.G.10 Use structures and patterns to work with equations of circles, find different forms of the equations and different defining features of the circle, including the center, radius, and points located on the circle. Use right triangles with the same hypotenuse length, and the Pythagorean Theorem to derive the equation of a circle. (MP 7)

S2.G.11 Attend to precision and reasonableness with respect to area and volume formulas (circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone) by applying informal arguments about how area and volume scale under similarity transformations. When scale factor k is applied to a figure, area scales by k^2 and volume scales by k^3 . (MP 6)

S2.G.12 Attend to precision and reasonableness while using volume formulas for cylinders, pyramids, cones, and spheres to solve problems. (MP 6)

S2.G.13 Derive the equation of a parabola given a focus and directrix. (MP 3)

S2.G.14 Derive the equations of ellipses and hyperbolas given the foci, using the fact that the sum or difference of distances from the foci is constant. (MP 3)

S2.D.1 Ask statistical questions to investigate linear, exponential, and quadratic associations between two quantitative variables. (MP 1)

S2.D.2 Select the appropriate statistical tools to create a data collection plan. Collect and organize primary data to investigate the association between two variables and make conjectures. For secondary data, determine if data collected are useful to answer the statistical question of interest. (MP 5)

S2.D.3 Analyze data to explore the association between two quantitative variables. Use scatter plots to determine and explain patterns of association. Use technology to find and interpret the correlation coefficient and evaluate the reasonableness and strength of the model used. Determine whether a linear, exponential or quadratic function is the most reasonable model for the data. (MP 6, 8)

S2.D.4 Use the statistical evidence to evaluate results from analyses to answer questions about associations between two quantitative variables. Identify ways to refine investigative questions, data collection, visualization, or analysis. Represent the relationship with a curve of best fit and use the model of the equation to solve problems. Justify statistical reasoning and results to others in a variety of formats including verbal, written, and visual. (MP 3, 8)

S2.V.1 Recognize vector quantities as having both magnitude and direction. Represent vector quantities by directed line segments, and use appropriate symbols for vectors and their magnitudes. (MP 7)

S2.V.2 Find and represent the components of a vector by subtracting the coordinates of an initial point from the coordinates of a terminal point. (MP 7)

S2.V.3 Add and subtract vectors and multiply a vector by a scalar. Make sense of the operations by connecting with and without a context. (MP 2)
S2.V.4 Multiply a vector (regarded as a matrix with one column) by a matrix of suitable dimensions to produce another vector. Work with matrices as transformations of vectors. Make sense of this product by connecting it with and without a context. (MP 2)
S2.V.5 Solve real world and mathematical problems involving velocity and other quantities that can be represented by vectors. (MP 2)

Strong alignment
Partial alignment
Different grade level
Weak alignment
Utah only—No MN analog

Different Utah grade
Minnesota only

Minnesota
9.3.6.3 Choose and produce an equivalent form of a quadratic function, using symbolic and graphical methods, to identify the vertex, line of symmetry and intercepts of the parabola. (MP8) 9.3.6.2 Reason abstractly to compare general forms of quadratics, including vertex form, general form, factored form and the graph. Develop procedures to convert from one form to another. (MP2, MP7)
9.3.6.1 Add, subtract and multiply polynomials. (MP1, MP7)
9.3.7.1 Represent and solve situations in various contexts, including financial literacy, using systems of linear equations, systems of linear inequalities and exponential and quadratic functions. (MP4)
9.3.6.5 Solve quadratic equations by appropriate methods using factoring, completing the square, graphing or the quadratic formula. Find non-real complex roots when they exist. (MP2, MP7)
9.3.7.1 Represent and solve situations in various contexts, including financial literacy, using systems of linear equations, systems of linear inequalities and exponential and quadratic functions. (MP4)
9.3.7.7 Describe the graph of a function using key features such as intercepts, maxima/minima, intervals of increase and decrease and end behavior. Draw conclusions from graphs of functions and other relations. (MP3) 9.3.7.6 Find the domain and range of functions defined symbolically, graphically or in a context, including piecewise and step functions. Express solutions and recognize that some answers obtained may not be valid, including cases where the function inputs are discrete instead of continuous. (MP4)

9.3.7.2 Translate between graphs of quadratic, exponential and other functions (including absolute value, rational and polynomial), tables and symbolic representations. Sketch graphs and use graphing technology to graph functions. (MP5)

9.3.7.6 Find the domain and range of functions defined symbolically, graphically or in a context, including piecewise and step functions. (MP4)

9.3.7.7 Describe the graph of a function using key features such as intercepts, maxima/minima, intervals of increase and decrease and end behavior. Draw conclusions from graphs of functions and other relations. (MP3)

9.3.6.2 Reason abstractly to compare general forms of quadratics, including vertex form, general form, factored form and the graph. Develop procedures to convert from one form to another. (MP2, MP7)

9.3.6.3 Choose and produce an equivalent form of a quadratic function, using symbolic and graphical methods, to identify the vertex, line of symmetry and intercepts of the parabola. (MP8)

9.3.5.7 Use the structure of an expression, equation and/or formula to create an equivalent form that is more helpful given the situation. Rearrange formulas to highlight a quantity of interest, using the same reasoning in solving equations. (MP6)

9.3.7.3 Determine how vertical/ horizontal reflecting, translating and scaling affect the symbolic and graphical forms of a function. Use graphing technology to examine transformations. (MP3)

(No corresponding Minnesota Grades 9–11 benchmark; the related idea of slope as a rate of change for linear functions appears in MN Grade 8.)

9.3.7.1 Represent and solve situations in various contexts, including financial literacy, using systems of linear equations, systems of linear inequalities and exponential and quadratic functions. (MP4)

9.3.6.3 Choose and produce an equivalent form of a quadratic function, using symbolic and graphical methods, to identify the vertex, line of symmetry and intercepts of the parabola. (MP8)

9.3.6.2 Reason abstractly to compare general forms of quadratics, including vertex form, general form, factored form and the graph. Develop procedures to convert from one form to another. (MP2, MP7)

9.3.6.3 Choose and produce an equivalent form of a quadratic function, using symbolic and graphical methods, to identify the vertex, line of symmetry and intercepts of the parabola. (MP8)

9.3.5.2 Compare the definition of rational exponents and properties of radicals. Explain how the definition of rational exponents follows from extending the properties of integer exponents, allowing for a notation for radicals in terms of rational exponents. (MP6)

9.3.6.8 Apply the properties of rational exponents and radicals to generate equivalent algebraic expressions. (MP2, MP7)

9.3.5.3 Apply knowledge of number systems extending from whole numbers to integers, from integers to rational numbers, from rational numbers to real numbers and from real numbers to complex numbers to solve equations. (MP2, MP7)

9.3.6.5 Solve quadratic equations by appropriate methods using factoring, completing the square, graphing or the quadratic formula. Find non-real complex roots when they exist. (MP2, MP7)

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(No corresponding Minnesota Grades 9–11 benchmark)

9.2.4.7 Construct logical arguments using axioms, definitions, theorems and postulates that clearly justify the reasoning. (MP3, MP6)

9.2.4.1 Apply properties of angles, including corresponding, exterior, interior, vertical, complementary and supplementary angles, to solve situations and logically justify results. (MP1, MP3)

9.2.4.2 Apply properties of equilateral, isosceles and scalene triangles to solve situations and logically justify results. (MP1, MP3)

9.2.4.10 Apply properties of similar figures to solve situations and logically justify results. (MP3)

9.2.3.9 Apply dilations of scale factor k on length, area and volume and recognize the effect is multiplication by k , k^2 , k^3 respectively. (MP2)

9.2.4.11 Show that two triangles are similar using the AA, SAS and SSS similarity criteria. (MP7)

9.2.4.4 Apply properties of congruent figures to solve situations and logically justify results. (MP1, MP3)

9.2.3.8 Use similarity to determine the side ratios in right triangles as properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles. (MP8)

(No corresponding Minnesota Grades 9–11 benchmark; MN addresses right-triangle trigonometric ratios but not trigonometric identities.)

9.2.3.3 Use trigonometric ratios and the Pythagorean Theorem and its converse to solve contextual situations, including right triangles or polygons that can be decomposed into triangles. (MP4, MP7)

9.2.4.8 Identify, describe and solve situations using relationships among inscribed angles, circumscribed angles, radii and chords in circles. (MP5)

9.2.4.10 Apply properties of similar figures to solve situations and logically justify results. (MP3)

9.2.4.8 Identify, describe and solve situations using relationships among inscribed angles, circumscribed angles, radii and chords in circles. (MP5)

9.2.4.9 Describe and solve situations using the relationships of angles formed outside the circle for both secants and tangent lines. (MP7)

(No corresponding Minnesota Grades 9–11 benchmark)

9.3.6.6 Compare the equation of a circle, the Pythagorean Theorem and the Distance Formula. Complete the square to find the center and radius of a circle given an equation. (MP2, MP8)

9.2.3.9 Apply dilations of scale factor k on length, area and volume and recognize the effect is multiplication by k , k^2 , k^3 respectively. (MP2)

9.2.3.4 Develop, justify and use decomposition to determine the formula for surface area and volume of various three-dimensional figures. (MP7, MP8)

9.2.3.5 Use the formulas for surface area and volume of various three-dimensional figures to solve multi-step contextual situations. (MP4, MP5)

(No corresponding Minnesota Grades 9–11 benchmark)

(No corresponding Minnesota Grades 9–11 benchmark)

9.1.1.1 Formulate statistical investigative questions and pose hypotheses. These include questions about variation or the differences between groups, associations between quantitative and categorical variables or pairing together multiple analyses. (MP1, MP3)

9.1.1.11 Identify, create and compare statistical models with linear and exponential functions, including linear regression. Assess the reasonableness of model fit using residuals and correlation coefficients. (MP4)

9.1.1.2 Explain how choices concerning data collection methods can affect the quality, size, speed, accessibility and cost of the data. (MP3)

9.1.1.4 Explain the purposes of and differences among sample surveys, experiments and observational studies. Explain whether randomization in each allows for conclusions of causation and/or generalization of a population. (MP3)

9.1.1.6 Compute using technology or estimate the correlation coefficient of a linear model. Interpret the linear model in the context of the data. (MP5, MP6)

9.1.1.10 Create and analyze data displays, including scatter plots, histograms and boxplots using technology. (MP1)

9.1.1.11 Identify, create and compare statistical models with linear and exponential functions, including linear regression. Assess the reasonableness of model fit using residuals and correlation coefficients. (MP4)

9.1.1.11 Identify, create and compare statistical models with linear and exponential functions, including linear regression. Assess the reasonableness of model fit using residuals and correlation coefficients. (MP4)

9.1.1.6 Compute using technology or estimate the correlation coefficient of a linear model. Interpret the linear model in the context of the data. (MP5, MP6)

(No corresponding Minnesota Grades 9–11 benchmark)

(No corresponding Minnesota Grades 9–11 benchmark)

(No corresponding Minnesota Grades 9–11 benchmark)

9.3.5.4 Use matrices to represent and manipulate data and interpret the results in context. Add, subtract and multiply matrices of appropriate dimensions. Multiply matrices by scalars. (MP4, MP5)

(No corresponding Minnesota Grades 9–11 benchmark)

39.5%
27.9%
2.3%
11.6%
18.6%
100.0%

0
0

Alignment	Commentary
Strong	MN 9.3.6.3 and 9.3.6.2 directly cover producing/comparing equivalent forms of quadratics (vertex, factored, general) to reveal features such as the vertex and intercepts—exactly Utah's example of using vertex form to find a maximum. Utah also includes exponential expressions, which MN treats less explicitly here.
Strong	Direct match. MN 9.3.6.1 has students add, subtract, and multiply polynomials, which includes the linear and quadratic cases Utah names; MN frames the work as polynomials and Utah as functions.
Strong	MN 9.3.7.1 covers representing and solving contextual situations with linear and quadratic functions and with linear inequalities, closely matching Utah's expectation to build and use linear and quadratic models in and out of context.
Partial	MN 9.3.6.5 lists the same solution methods Utah names (factoring, completing the square, quadratic formula, graphing); however MN addresses only quadratic equations, while Utah also includes quadratic inequalities.
Partial	MN 9.3.7.1 references systems and quadratic functions, so the general idea is present, but it does not explicitly call for solving a system composed of one linear and one quadratic equation in two variables, so coverage is partial.
Strong	Strong match across the listed features. MN 9.3.7.7 covers intercepts, maxima/minima, and intervals of increase/decrease, and 9.3.7.6 covers domain and range, together spanning Utah's focus features.

Strong	MN 9.3.7.2 explicitly graphs quadratic, exponential, and absolute value functions from symbolic form using technology, and 9.3.7.6 addresses piecewise functions—together covering Utah's listed function families.
Partial	MN describes the key features of function graphs (9.3.7.7) and compares forms of quadratics (9.3.6.2), but it has no benchmark that explicitly compares and contrasts properties across the linear, quadratic, exponential, absolute value, and piecewise families, so the match is partial.
Strong	Producing equivalent forms that reveal different properties is well covered: 9.3.6.3 does this for quadratics (vertex/symmetry/intercepts) and 9.3.5.7 does it generally for expressions/equations/formulas, matching Utah's intent.
Strong	MN 9.3.7.3 covers translating ($f(x)+k$, $f(x+k)$) and scaling ($kf(x)$) effects on a function's graph and symbolic form, encompassing Utah's transformations of quadratic and absolute value functions.
Different grade level	Average rate of change of a function over an interval is not a stated Minnesota Grades 9–11 benchmark; the closely related notion of slope as a constant rate of change for linear functions sits in MN Grade 8. The connection is therefore only foundational.
Partial	MN 9.3.7.1 models contextual situations with quadratic functions, overlapping Utah's quadratic-modeling intent. The explicit-versus-recursive building emphasis Utah adds is not a feature of MN's quadratic work, so the match is partial.

Partial	Interpreting quadratic forms against graph features is strongly matched by 9.3.6.2 and 9.3.6.3. However, distinguishing which family (quadratic vs. exponential vs. linear) models a given situation is not an explicit MN benchmark, so overall the match is partial.
Strong	Direct match. MN 9.3.5.2 explicitly extends the properties of integer exponents to define rational exponents, which is precisely Utah S2.NS.1.
Strong	Direct match. Both require applying exponent/radical properties to rewrite radical and rational-exponent expressions in equivalent forms.
Partial	MN extends number systems to the complex numbers to solve equations (9.3.5.3) and finds non-real complex roots of quadratics (9.3.6.5), overlapping Utah's content. However, MN does not invoke the Fundamental Theorem of Algebra or the argument that every quadratic solution lies in the complex numbers, so the match is partial.
Partial	MN 9.3.6.5 solves quadratics and finds non-real complex roots, overlapping Utah's goal of solving quadratics with complex solutions. MN does not address factoring such quadratics over the complex numbers (the $(x + 2i)(x - 2i)$ representation), so the match is partial.
Weak	MN 9.3.5.3 acknowledges the complex numbers as part of the number system, but conjugates, moduli, quotients, and representation on the complex plane are not addressed, so the connection is weak.
Weak	MN extends the number system to include complex numbers (9.3.5.3) but does not represent complex numbers on the complex plane, so only a foundational connection exists.
Utah only	Geometric representation of complex-number operations on the complex plane is not part of the Minnesota Grades 9–11 standards.

Partial	MN 9.2.4.7 establishes formal proof/logical-argument practice, and 9.2.4.1–2 supply the angle and triangle content, so the proof activity overlaps. MN does not enumerate the specific theorems Utah lists (alternate interior angles, isosceles base angles, midsegment, concurrency of medians, parallelogram properties) or require multiple proof formats, so the match is partial.
Strong	MN 9.2.4.10 applies properties of similar figures and 9.2.3.9 applies dilations, together matching Utah's expectation to use the structure and properties of dilation and similarity to solve problems.
Partial	MN provides triangle similarity criteria (9.2.4.11) and congruent-figure reasoning (9.2.4.4), supporting the criteria-based problem solving. However, proving the Pythagorean Theorem via triangle similarity is not an explicit MN benchmark, so the match is partial.
Strong	Direct match. MN 9.2.3.8 derives right-triangle side ratios from similarity and uses them to define trigonometric ratios for acute angles—the same progression as Utah S2.G.4.
Weak	MN defines and uses trigonometric ratios (9.2.3.3, 9.2.3.8) but has no benchmark on trigonometric identities (the sine/cosine cofunction relationship, the Pythagorean identity, or tangent as sine over cosine) so only the underlying ratios connect.
Strong	Direct match. Both use trigonometric ratios and the Pythagorean Theorem to solve right-triangle problems in context.

Weak	MN works with circle angle/chord relationships (9.2.4.8) and with similarity (9.2.4.10) separately, but the specific argument that all circles are similar is not a stated MN benchmark, so the connection is weak.
Strong	Strong match. MN 9.2.4.8 covers inscribed/circumscribed angles, radii, and chords, and 9.2.4.9 covers tangent/secant relationships, together spanning Utah's circle angle, chord, and tangent relationships.
Utah only	Radian measure, arc length versus arc measure, and the area of a sector are not addressed anywhere in the Minnesota Grades 9–11 standards.
Strong	Direct match. MN 9.3.6.6 works with the equation of a circle, relates it to the Pythagorean Theorem, and finds the center and radius—the core of Utah S2.G.10.
Strong	Direct match on scaling. MN 9.2.3.9 states that under scale factor k , area scales by k^2 and volume by k^3 (identical to Utah S2.G.11) and 9.2.3.4 supplies the underlying area/volume formulas.
Strong	Direct match. MN 9.2.3.5 uses surface area and volume formulas for three-dimensional figures to solve multi-step problems, covering Utah's cylinders, pyramids, cones, and spheres.
Utah only	Conic sections defined by focus and directrix are not part of the Minnesota Grades 9–11 standards.
Utah only	Ellipses and hyperbolas defined by their foci are not part of the Minnesota Grades 9–11 standards.

Partial	MN 9.1.1.1 formulates statistical questions about associations, and 9.1.1.11 models linear and exponential associations, overlapping Utah's intent. Quadratic associations specifically are not named in MN, so the match is partial.
Partial	MN addresses choosing among data-collection methods and study designs (9.1.1.2, 9.1.1.4) and judging the usefulness of data, overlapping Utah's planning intent. MN emphasizes explaining/evaluating collection choices rather than students executing a primary-data collection plan, so the match is partial.
Strong	Strong match. MN 9.1.1.10 produces scatter plots, 9.1.1.6 computes/interprets the correlation coefficient with technology, and 9.1.1.11 compares model fit—together covering Utah's analysis. MN's model comparison is linear/exponential; the quadratic option is a modest extension.
Partial	Fitting and interpreting a linear model is well matched (9.1.1.6, 9.1.1.11). Utah's broader "curve of best fit" (nonlinear models) and the explicit investigative-cycle refinement go beyond MN's linear-regression focus, so the match is partial.
Utah only	Vectors—magnitude and direction, directed line segments, and vector notation—are not part of the Minnesota Grades 9–11 standards.
Utah only	Finding vector components from endpoint coordinates is not addressed in the Minnesota Grades 9–11 standards.

Utah only	Vector addition, subtraction, and scalar multiplication are not part of the Minnesota Grades 9–11 standards.
Weak	MN 9.3.5.4 multiplies matrices of appropriate dimensions, which technically subsumes a matrix-by-column-vector product, but MN does not treat vectors or matrices as transformations of vectors, so the connection is weak.
Utah only	Applications of vectors (e.g., velocity problems) are not addressed in the Minnesota Grades 9–11 standards.

	Utah strand
5	#A standards
7	#NS standards
8	#F standards
14	#G standards
4	#D standards
5	#MV standards

Total

Total Utah standards	Strong	Partial	Weak	Different Minnesota grade-level
5	3	2	0	0
7	2	2	2	0
8	4	3	0	1
14	7	2	2	0
4	1	3	0	0
5	0	0	1	0
43	17	12	5	1

Utah only	Different Utah grade level	Minnesota only
0	0	0
1	0	0
0	0	0
3	0	0
0	0	0
4	0	0
8	0	0

Domain	Topic
Algebra	Features of Equations & Expressions
Algebra	
Algebra	Modeling with Equations & Inequalities
Algebra	
Functions	Features of Functions & Expressions

Functions	
Functions	
Functions	Modeling with Functions
Functions	
Functions	
Functions	Graphical Representations of Functions
Functions	
Geometry	Volume & Measurement

Geometry	
Geometry	
Data Science	Categorical Data
Data Science	Probability
Data Science	
Data Science	
Data Science	

Data Science	Statistical Reasoning
Data Science	
Data Science	

of Utah S3 Standards:
23

Utah

S3.A.1 Interpret polynomial expressions given in factored form or standard form that represent a quantity in terms of a context. Represent polynomial expressions by using technological tools to produce equivalent forms (standard or factored) that reveal different properties, and interpret one or more of their parts as a single entity. (MP 2, 5, 7)

S3.A.4 Solve an equation of the form $f(x)=c$ for a simple function f that has an inverse. Use the attributes of inverse relationships to write inverse expressions. Include linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, logarithmic, square root, and cube root functions. (MP7)

S3.A.2 Create equations and inequalities in one variable to model a context and use them to solve problems. Include equations arising from linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, square root and cube root functions. (MP 3)

S3.A.3 For exponential models, express as a logarithm the solution to $f(t)=ab^{ct} = d$ where a , c , and d are numbers, and the base b is 2 or 10; evaluate the logarithm using technological tools. (MP 2)

S3.F.1 Understand and interpret the features of polynomial, radical or logarithmic functions represented graphically using interval notation and inequalities by applying and removing context. Focus on these key features: domain, range, intervals of increase and/or decrease, location of absolute maximum and/or absolute minimum, intercepts and end behavior. Build graphic models that satisfy given key features. (MP 2, 4)

S3.F.8 Justify that a quantity increasing exponentially eventually exceeds a quantity increasing linearly or quadratically, or (more generally) as a polynomial function. (MP 3)

S3.F.3 Understand and interpret key features (period, midline and amplitude) of sine and cosine functions represented graphically. Build graphic models that satisfy the given key features. (MP 4)

S3.F.2 Build and use models of periodic phenomena with sine and cosine functions that connect real world contexts with amplitude, frequency, and midline. Use structures and patterns to support understanding of a domain extended beyond 0 to 90 degrees, or 0 to $\pi/2$ radians. (MP 4, 7)

S3.F.6 Use the attributes of inverse relationships to build models (tables, graphs, verbal descriptions and equations) for the inverses of linear, exponential, and quadratic functions. (MP 4, 7)

S3.F.7 Determine which function type (polynomial, square root, cubic root, exponential, or trigonometric) best models a given real world context. (MP 4)

S3.F.4 Build graphical representations that show key features of polynomial, square root, cube root, exponential, logarithmic, and trigonometric (sine and cosine) functions expressed symbolically. Select and use appropriate tools to graph, by hand for simple cases, and using technology for more complicated cases. (MP 4, 5)

S3.F.5 Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(x+k)$ by exploring specific values of k for polynomial, square root, cube root, exponential, logarithmic, and trigonometric functions in and out of context. Attend to precision of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are reasonable. (MP 3, 6)

S3.G.1 Use geometric shapes, their measures, and their properties to model real world objects and solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost). Use these models to ask targeted and probing questions with respect to area and volume in context. (MP 1, 2, 4)

S3.G.2 Apply concepts of density based on area and volume in modeling situations. (MP4)

S3.G.3 Attend to precision and reasonableness while using volume formulas for cylinders, pyramids, cones, and spheres to solve problems. (MP 6)

S3.D.1 Describe and represent structures and patterns of data on two categorical variables. Attend to precision and reasonableness when summarizing categorical data in two-way frequency models, and construct, justify, and communicate clear and reasonable arguments about possible associations and trends in the data. (MP 3, 6, 7)

S3.D.2 Build and use probability models including organized lists, venn-diagrams, tree diagrams, and two-way tables to find or estimate probabilities of compound or conditional events. (MP 4)

S3.D.3 Use multiple representations as tools to describe and represent structure to build understanding of the addition rule, $P(A \cup B) = P(A) + P(B) - P(A \cap B)$. Understand the conditional probability of A given B as $P(A \cap B)/P(B)$. Interpret independence of A and B as saying that the conditional probability of B given A is the same as the probability of B. (MP 7)

S3.D.4 Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Select and use physical and/or tech tools to estimate areas under the normal curve. (MP 5)

S3.D.5 Formulate statistical investigative questions that are either summary-based or comparative for surveys, observational studies, or experiments using primary and/or secondary data. Select appropriate statistical tools to develop a plan for data collection and analysis to address these questions. (MP 1, 5)

S3.D.6 Select appropriate statistical tools to implement a data collection plan for primary data related to an investigative question. When using secondary data, assess its validity and relevance to answering the question. Construct an argument justifying the chosen data collection method (survey, observational study or experiment). Understand and apply best practices for designing sample surveys, experiments, and observational studies. (MP 3, 5)

S3.D.7 Attend to precision and reasonableness when summarizing and organizing collected data to answer an investigative question using tables, graphs, and numerical summary statistics. Use models from sample data to estimate population means or proportions. Employ simulation models for random sampling to determine approximate sampling distributions and compute p-values from those distributions. (MP 4, 6)

S3.D.8 Use statistical evidence from the analyses to evaluate results and answer questions. Identify ways to refine investigative questions, data collection, visualization, or analysis. Justify outcomes or estimates of population characteristics, considering their plausibility compared to chance variation, in a variety of formats (verbal, written, visual). Communicate the interpretation of simulated p-values and determine statistical significance. (MP 3, 8)

Strong alignment

Partial alignment

Different grade level

Weak alignment

Utah only—No MN analog

Different Utah grade

Minnesota only

Minnesota
9.3.6.4 Factor polynomials including common monomial factors from polynomials, quadratic polynomials and the difference of two squares. (MP7, MP8) 9.3.5.8 Use the structure of an expression to write it in multiple ways. (MP7) 9.3.6.2 Reason abstractly to compare general forms of quadratics, including vertex form, general form, factored form and the graph. Develop procedures to convert from one form to another. (MP2, MP7)
9.3.7.9 Find the inverse of a given function and justify the results using tables, graphs or algebra. (MP4, MP6)
9.3.7.1 Represent and solve situations in various contexts, including financial literacy, using systems of linear equations, systems of linear inequalities and exponential and quadratic functions. (MP4)
(No corresponding Minnesota Grades 9–11 benchmark)
9.3.7.7 Describe the graph of a function using key features such as intercepts, maxima/minima, intervals of increase and decrease and end behavior. Draw conclusions from graphs of functions and other relations. (MP3) 9.3.7.6 Find the domain and range of functions defined symbolically, graphically or in a context, including piecewise and step functions. (MP4) 9.3.7.2 Translate between graphs of quadratic, exponential and other functions (including absolute value, rational and polynomial), tables and symbolic representations. Sketch graphs and use graphing technology to graph functions. (MP5)

(No corresponding Minnesota Grades 9–11 benchmark; MN works with exponential and polynomial functions but does not compare their long-run growth.)

(No corresponding Minnesota Grades 9–11 benchmark)

(No corresponding Minnesota Grades 9–11 benchmark)

9.3.7.9 Find the inverse of a given function and justify the results using tables, graphs or algebra. (MP4, MP6)

9.1.1.11 Identify, create and compare statistical models with linear and exponential functions, including linear regression. Assess the reasonableness of model fit using residuals and correlation coefficients. (MP4)

9.3.7.2 Translate between graphs of quadratic, exponential and other functions (including absolute value, rational and polynomial), tables and symbolic representations. Sketch graphs and use graphing technology to graph functions. (MP5)

9.3.7.3 Determine how vertical/ horizontal reflecting, translating and scaling affect the symbolic and graphical forms of a function. Use graphing technology to examine transformations. (MP3)

9.2.4.15 Apply geometric methods to solve design situations, including designing an object or structure to satisfy physical constraints or optimize resources. (MP4)

9.2.3.7 Compute the unit cost and total cost to cover different areas and volumes in applications, such as painting, carpeting and gardening. Optimize costs for various models, including linear and quadratic. Use technology, including spreadsheets. (MP4, MP5)

9.2.4.16 Apply concepts of density based on area and volume in modeling contextual situations, including population density, BTUs per cubic foot and data storage. (MP4)

9.2.3.5 Use the formulas for surface area and volume of various three-dimensional figures to solve multi-step contextual situations. (MP4, MP5)

9.1.2.5 Construct and interpret two-way frequency tables when two categories are associated with each object being classified. Use the two-way table to decide if events are independent and to calculate conditional probabilities. (MP4, MP5)

9.1.2.2 Describe events as subsets of a sample space using characteristics of the outcomes. Use Venn diagrams, tables or lists to depict events and compute event sizes. Create representations to find unions, intersections and complements of events. (MP1)

9.1.2.3 Apply probability concepts, such as intersections, unions and complements of events, and conditional probability and independence, to calculate probabilities and solve situations. (MP4)

9.1.2.3 Apply probability concepts, such as intersections, unions and complements of events, and conditional probability and independence, to calculate probabilities and solve situations. (MP4)

9.1.1.7 Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Identify data sets for which such a procedure is not appropriate. Tools can include calculators, spreadsheets, apps or tables. (MP5, MP6)

9.1.1.1 Formulate statistical investigative questions and pose hypotheses. These include questions about variation or the differences between groups, associations between quantitative and categorical variables or pairing together multiple analyses. (MP1, MP3)

9.1.1.4 Explain the purposes of and differences among sample surveys, experiments and observational studies. Explain whether randomization in each allows for conclusions of causation and/or generalization of a population. (MP3)

9.1.1.4 Explain the purposes of and differences among sample surveys, experiments and observational studies. Explain whether randomization in each allows for conclusions of causation and/or generalization of a population. (MP3)

9.1.1.2 Explain how choices concerning data collection methods can affect the quality, size, speed, accessibility and cost of the data. (MP3)

9.1.1.8 Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples or simulated samples of the same size to gauge the variation in estimates or predictions. (MP1, MP4)

9.1.1.13 Analyze and interpret data using various measures, such as difference in shapes, center and spread to draw conclusions, identify trends and describe relationships, accounting for possible effects of extreme data points (outliers). (MP1)

9.1.1.8 Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples or simulated samples of the same size to gauge the variation in estimates or predictions. (MP1, MP4)

9.1.1.12 Examine and discuss competing explanations for data trends observed such as confounding variables. Respond to competing arguments or interpretations of the data of different community groups, paying careful attention to what conclusions the data supports. (MP3, MP6)

43.5%
34.8%
0.0%
8.7%
13.0%
100.0%

0
0

Alignment	Commentary
Partial	MN factors polynomials (9.3.6.4), rewrites expressions in multiple forms (9.3.5.8), and converts among quadratic forms (9.3.6.2). Interpreting general polynomial expressions in context and viewing parts as a single entity is only partially captured, so the match is partial.
Partial	MN 9.3.7.9 finds inverses of functions and justifies them, overlapping the inverse-relationship core of Utah S3.A.4. The specific function families (logarithmic, cube root, etc.) and solving $f(x)=c$ for them extend beyond the MN Grades 9–11 band, so the match is partial.
Partial	MN 9.3.7.1 creates and solves equations with linear, quadratic, and exponential functions in context, overlapping Utah's intent. Cubic, square root, and cube root functions are not in the MN Grades 9–11 band, so the match is partial.
Utah only	Logarithms are not part of the Minnesota Grades 9–11 standards.
Partial	MN describes key features including end behavior (9.3.7.7), domain/range (9.3.7.6), and graphs polynomial functions (9.3.7.2). Radical and logarithmic functions are not in the MN Grades 9–11 band, so the match is partial.

Weak	MN works with exponential, quadratic, and polynomial functions, but the justification that exponential growth eventually dominates polynomial growth is not a stated MN Grades 9–11 benchmark.
Utah only	Graphs and key features of sine and cosine functions are not part of the Minnesota Grades 9–11 standards.
Utah only	Sine and cosine as periodic functions, and modeling periodic phenomena, are not part of the Minnesota Grades 9–11 standards.
Strong	MN 9.3.7.9 finds the inverse of a function and justifies it using tables, graphs, or algebra—directly matching Utah's expectation to build inverse models in multiple representations for linear, exponential, and quadratic functions.
Weak	MN compares linear and exponential models in a data-analysis context (9.1.1.11), but selecting among polynomial, radical, and trigonometric function types as models is not a stated MN Grades 9–11 benchmark, so the connection is weak.
Partial	MN 9.3.7.2 graphs polynomial and exponential functions from symbolic form using technology. Square root, cube root, logarithmic, and trigonometric functions are not in the MN Grades 9–11 band, so the match is partial.
Partial	MN 9.3.7.3 covers the transformation effects (translating, scaling, reflecting) on a function's graph. The wider set of function families Utah lists (radical, logarithmic, trigonometric) extends beyond the MN Grades 9–11 band, so the match is partial.
Strong	Direct match. MN 9.2.4.15 solves geometric design problems under physical constraints / resource optimization, and 9.2.3.7 addresses cost optimization over areas and volumes, closely matching Utah's geometric modeling and design intent.

Strong	Direct match. MN 9.2.4.16 applies area- and volume-based density concepts in modeling situations, identical in substance to Utah S3.G.2.
Strong	Direct match. MN 9.2.3.5 uses volume (and surface area) formulas for three-dimensional figures to solve multi-step problems, covering Utah's cylinders, pyramids, cones, and spheres.
Strong	Direct match. MN 9.1.2.5 constructs and interprets two-way frequency tables for two categorical variables and uses them to assess association/independence—the core of Utah S3.D.1.
Strong	Strong match. MN 9.1.2.2 uses Venn diagrams, tables, and lists to represent events, and 9.1.2.3 computes probabilities of compound and conditional events—together covering Utah's probability-model tools.
Strong	Direct match. MN 9.1.2.3 applies unions, intersections, complements, conditional probability, and independence—precisely the addition rule and conditional-probability/independence content of Utah S3.D.3.
Strong	Near-verbatim match. MN 9.1.1.7 fits data to a normal distribution using mean and standard deviation, estimates population percentages, and identifies when the procedure is inappropriate, identical in substance to Utah S3.D.4.
Strong	Strong match. MN 9.1.1.1 formulates statistical investigative questions, and 9.1.1.4 distinguishes surveys, experiments, and observational studies, together covering Utah's question formulation and study-type planning.

Strong	Strong match. MN 9.1.1.4 addresses the purposes/differences among study types and the role of randomization (the basis for justifying a collection method), and 9.1.1.2 addresses how collection choices affect data quality, together covering Utah's design-and-justification expectations.
Partial	MN 9.1.1.8 uses random samples to infer about a population and simulates multiple samples to gauge variation, overlapping Utah's sampling-distribution idea. Formal sampling distributions and computing p-values are not in the MN Grades 9–11 band, so the match is partial.
Partial	MN draws and evaluates inferences and weighs competing explanations against what the data support (9.1.1.8, 9.1.1.12), overlapping Utah's evaluation intent. Simulated p-values and determining statistical significance are not in the MN Grades 9–11 band, so the match is partial.

	Utah strand	Total Utah standards
4	#A standards	4
8	#F standards	8
3	#G standards	3
8	#D standards	8
23	Total	23

Strong		Partial		Weak	Different Minnesota grade-level	Utah only
0		3		0	0	1
1		3		2	0	2
3		0		0	0	0
6		2		0	0	0
10		8		2	0	3

Different grade level	Utah	Minnesota only
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0

Course	Strand	Total standards	Strong	Partial
S1	Interpreting Equations & The	2	1	1
S1	Solving Equations	2	0	0
S1	Algebraic Modeling	4	0	3
S1	Functions Basics	4	3	0
S1	Functions and Sequences	3	1	1
S1	Comparing Linear and Exponen	4	2	0
S1	Rigid Transformations	5	1	2
S1	Geometric Constructions	1	1	0
S1	Attributes of Shapes	1	0	1
S1	Data & Statistical Reasoning	6	4	2
S1	Matrix Operations	3	1	0
S1	Modeling with Matrices	3	1	0
S1	Solving Systems with Matrice	2	0	0
S1 Totals		40	15	10
S2	Linear & Quadratic Expressio	5	3	2
S2	Features of Functions	5	4	1
S2	Modeling with Functions	3	0	2
S2	Rational Exponents	2	2	0
S2	Complex Numbers	5	0	2
S2	Geometric Proofs	2	1	1
S2	Similarity & Dilations	2	2	0
S2	Trigonometry & Triangle Simi	4	2	1
S2	Circles	4	2	0
S2	Area & Volume	0	0	0
S2	Cross Sections & Solids of R	2	0	0
S2	Data & Statistical Reasoning	4	1	3
S2	Vectors	5	0	0
S2 Totals		43	17	12
S3	Features of Equations & Expr	2	0	2
S3	Modeling with Equations & In	2	0	1
S3	Features of Functions	3	0	1
S3	Modeling with Functions	3	1	0
S3	Graphical Representations of	2	0	2
S3	Volume & Measurement	3	3	0
S3	Categorical Data	1	1	0
S3	Probability	2	2	0
S3	Statistical Reasoning	5	3	2
S3 Totals		23	10	8
		106	42	30

Different	Weak	Utah only	Different	MA only
0	0	0	0	0
1	1	0	0	0
0	1	0	0	0
1	0	0	0	0
1	0	0	0	0
2	0	0	0	0
0	2	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	1	0	0
0	0	2	0	0
0	1	2	0	0
5	6	5	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
0	0	0	0	0
0	2	1	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
0	1	1	0	0
0	0	0	0	0
0	0	2	0	0
0	0	0	0	0
0	1	4	0	0
0	6	8	0	0
0	0	0	0	0
0	0	1	0	0
0	1	1	0	0
0	1	1	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	3	0	0
5	14	16	0	0

Domain
Algebra

Algebra Totals:
Functions

Functions Totals:
Number Systems & Quantities

Number Systems & Quantities Totals:
Geometry

Geometry Totals:
Data Science

Data Science Totals:
Matrices & Vectors

Matrices & Vectors Totals:

Topic	Course	Total	Stand	Strong
Interpreting Equations & Their Components	S1	2		1
Solving Equations	S1	2		0
Algebraic Modeling	S1	4		0
Linear & Quadratic Expressions & Equations	S2	5		3
Features of Equations & Expressions	S3	2		0
Modeling with Equations & Inequalities	S3	2		0
		17		4
Functions Basics	S1	4		3
Functions and Sequences	S1	3		1
Comparing Linear and Exponential Functions	S1	4		2
Features of Functions	S2	5		4
Modeling with Functions	S2	3		0
Features of Functions	S3	3		0
Modeling with Functions	S3	3		1
Graphical Representations of Functions	S3	2		0
		25		11
Rational Exponents	S2	2		2
Complex Numbers	S2	5		0
		7		2
Rigid Transformations	S1	5		1
Geometric Constructions	S1	1		1
Attributes of Shapes	S1	1		0
Geometric Proofs	S2	2		1
Similarity & Dilations	S2	2		2
Trigonometry & Triangle Similarity	S2	4		2
Circles	S2	4		2
Area & Volume	S2	0		0
Cross Sections & Solids of Revolution	S2	2		0
Volume & Measurement	S3	3		3
		24		12
Data & Statistical Reasoning	S1	6		4
Data & Statistical Reasoning	S2	4		1
Categorical Data	S3	1		1
Probability	S3	2		2
Statistical Reasoning	S3	5		3
		18		11
Matrix Operations	S1	3		1
Modeling with Matrices	S1	3		1
Solving Systems with Matrices	S1	2		0
Vectors	S2	5		0
		13		2

S1	40
S2	43
S3	23

Partial	Different	Weak	Utah only	Different	IMA only
1	0	0	0	0	0
0	1	1	0	0	0
3	0	1	0	0	0
2	0	0	0	0	0
2	0	0	0	0	0
1	0	0	1	0	0
9	1	2	1	0	0
0	1	0	0	0	0
1	1	0	0	0	0
0	2	0	0	0	0
1	0	0	0	0	0
2	0	1	0	0	0
1	0	1	1	0	0
0	0	1	1	0	0
2	0	0	0	0	0
5	4	3	2	0	0
0	0	0	0	0	0
2	0	2	1	0	0
2	0	2	1	0	0
2	0	2	0	0	0
0	0	0	0	0	0
1	0	0	0	0	0
1	0	0	0	0	0
0	0	0	0	0	0
1	0	1	0	0	0
0	0	1	1	0	0
0	0	0	0	0	0
0	0	0	2	0	0
0	0	0	0	0	0
5	0	4	3	0	0
2	0	0	0	0	0
3	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
2	0	0	0	0	0
7	0	0	0	0	0
0	0	1	1	0	0
0	0	0	2	0	0
0	0	1	1	0	0
0	0	1	4	0	0
0	0	3	8	0	0

Strong+Partial %



Singapore Level	Typical Age
Nursery (N1–N2)	3–5
Kindergarten 1 (K1)	5
Kindergarten 2 (K2)	6
Primary 1	7
Primary 2	8
Primary 3	9
Primary 4	10
Primary 5	11
Primary 6	12
Secondary 1	13
Secondary 2	14
Secondary 3	15
Secondary 4	16
Secondary 5 (where applicable)	17
Junior College 1 / Pre-U Yr 1	17
Junior College 2 / Pre-U Yr 2	18

Rule of thumb: Primary 1

Notes & Caveats

- Age skew: Singapore's school year runs January–November while the U.S. runs from September to June. Exact transfer placement depends on birth month.
- Post-secondary split: After Secondary school, Singapore branches into Junior College (JC, leading to a diploma), or the Institute of Technical Education (ITE). A Polytechnic diploma is roughly equivalent to a U.S. two-year college degree.

- Streaming change: Singapore has phased out Express / Normal (Academic) / 1 affects how subjects are leveled within a grade, not the grade-to-grade stru
- This crosswalk reflects the grade-number equivalence used by Singapore in exact curricular equivalence.

Singapore ↔ U.S. Grade Level Crosswalk

Singapore mainstream pathway mapped to the U.S. K–12 system

U.S. Equivalent	U.S. School Stage
Preschool	Pre-K
Pre-Kindergarten	Pre-K
Kindergarten	Elementary
Grade 1	Elementary
Grade 2	Elementary
Grade 3	Elementary
Grade 4	Elementary
Grade 5	Elementary
Grade 6	Middle School
Grade 7	Middle School
Grade 8	Middle School
Grade 9	High School
Grade 10	High School
Grade 11	High School
Grade 11	High School
Grade 12	High School

Primary N = Grade N

•

Secondary N = Grade N + 6

ns August–June, so a Singapore student is usually toward the older er
 th — a student finishing Primary 6 may be placed in U.S. Grade 6 or

ior College / Pre-University (2–3 yrs, A-Levels — closest to U.S. Gr
 ma overlaps both U.S. high school and the first year or two of U.S. c

Normal (Technical) streaming in favor of full Subject-Based Banding (structure shown here.

ternational schools for placement. It is a guide for placement/transf



Key Milestone
** Note: Singapore standards for Pre-K and K were not easily available. WestEd team is still looking.
PSLE (national exam)
GCE O-Level
N→O-Level route
GCE A-Level



nd of (or slightly older than) U.S.
7.

rades 11-12), Polytechnic (3-yr
community college, so it has no

(streaming abolished by 2025). This

fer purposes, not a statement of

Domain	Topic
Algebraic Thinking	Add/subtract problem types
Algebraic Thinking	
Algebraic Thinking	
Algebraic Thinking	Fluency / basic facts
Algebraic Thinking	
Algebraic Thinking	Patterns & algebraic thinking
Algebraic Thinking	

Algebraic Thinking	
Number & Operations	Two-digit place value & arithmetic
Number & Operations	
Number & Operations	
Number & Operations	Counting and estimating collections to 120
Number & Operations	
Number & Operations	Multiplication & Divison
Number & Operations	
Number & Operations	
Number & Operations	

Geometry & Measurement	Length measurement
Geometry & Measurement	
Geometry & Measurement	Time (to half hour)
Geometry & Measurement	Money
Geometry & Measurement	Shape Composition & Decomposition
Geometry & Measurement	
Geometry & Measurement	
Data Science	Data investigations
Data Science	
Data Science	
Data Science	

of Utah Grade 1 Standards:
26

Utah

1.OA.1 Build and use models to solve addition and subtraction story problems with sums and minuends less than or equal to 20. Add or remove story context to solve problem type situations of adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions. (MP 2, 4)

1.OA.2 Build and use models to solve story problems involving adding three whole numbers with sums less than or equal to 20. Add or remove context to make sense of problems and solutions. (MP 2, 4)

1.OA.4 Describe and represent subtraction as an unknown-addend problem. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers, and justify the results. (MP 3, 7)

1.OA.7 Use strategies to add and subtract flexibly, accurately, and efficiently with sums and minuends less than or equal to 10. (MP 6)

1.OA.3 Make and test conjectures about properties of addition. Add context to make sense of these properties as strategies to add and subtract. (MP 2, 8)

1.OA.5 Describe structures and relationships to connect counting to addition and subtraction. (MP 7)

1.OA.6 Add and subtract with sums and minuends less than or equal to 20. Connect and justify different strategies for addition and subtraction. (MP 3)

1.OA.8 Build and use models to make sense of the meaning of the equal sign. Make and test conjectures regarding whether addition and subtraction equations are true or false. (MP 4, 8)

1.NBT.2 Build and use models to represent and identify the number of tens and ones in a two-digit number. Show place value understanding by bundling ten ones to make a "ten." (MP 4)

1.NBT.3 Compare two two-digit numbers using models and/or place value understanding. Represent the relationship between the two numbers using comparison symbols $<$, $=$, and $>$. (MP 4, 7)

1.NBT.4 Build and use concrete and pictorial models to determine the sum of two two-digit numbers, a two-digit number and a one-digit number, and a two-digit number and a multiple of ten (less than or equal to 90). Use the models to represent and describe the structure of combining tens with tens, ones with ones, and composing ten ones to make a ten. Ask questions to compare concrete and pictorial models. (MP 4, 7, 8)

1.NBT.1 Count to 120 accurately, starting at any number. Represent a number of objects up to and including 120 with a written numeral. (MP 6)

No Utah grade level match

— (No corresponding Utah standard at this grade)

1.NBT.5 Build and use concrete and pictorial models to subtract a multiple of ten from a larger multiple of ten. Ask questions to compare concrete and pictorial models. (MP 1, 7)

1.NBT.6 Mentally find ten more or ten less than a given two-digit number and justify the result using place value language. (MP 3)

1.NBT.7 Use place value understanding to count forward or backward by tens from any number, and describe the pattern in the ones place and tens place when counting by ten. (MP 7)

1.MG.1 Select a tool to use as a non-standard length unit. Measure by repeating the non-standard length unit. Express the length of the object as a whole number. (MP 5)
1.MG.2 Construct a reasonable argument about the order of three objects sorted by length. Compare the lengths of two objects indirectly using a third object and justify the results. (MP 3)
1.MG.3 Tell and write time in hours and half-hours using analog and digital clocks, attending to precision and reasonableness. (MP 6, 3)
1.MG.4 Describe attributes of and identify common U.S. coins. Attend to precision when representing their comparative values and use appropriate notation (5¢). (MP 6)
1.MG.5 Ask questions to distinguish between defining and non-defining attributes of shapes. Given defining attribute(s), build and draw shapes that possess the defining attribute(s). (MP 1)
1.MG.6 Use structures, patterns, and relationships to create a composite shape formed by two- and three-dimensional shapes and compose new shapes from the composite shape. (MP 7)
1.MG.7 Build and use models to partition circles and rectangles into two or four equal shares. Justify, compare, and evaluate how decomposing a shape into more equal shares creates smaller shares. (MP 3, 4)
1.D.1 Determine a topic question and ask investigative questions that will lead to collecting, analyzing, and interpreting data within the context of the classroom. (MP 1)
1.D.2 Collect and organize data. Build data visualizations including bar graphs and picture graphs. When given a data set, build data models and visualizations. (MP 4)
1.D.3 Analyze data sets and data visualizations with up to three categories. Ask questions to make sense of the data representation. (MP 1)
1.D.4 Interpret data to answer investigative questions. Construct and justify arguments about the data. (MP 3)

Strong alignment
Partial alignment
Different Singapore grade level
Weak alignment
Utah only—No Singapore analog

Different Utah grade level
Singapore only

Singapore

P1 · Whole Numbers — Addition and Subtraction:

2.1 concepts of addition and subtraction

2.5 adding and subtracting within 100

P1 · Whole Numbers — Addition and Subtraction:

2.4 adding more than two 1-digit numbers

P1 · Whole Numbers — Addition and Subtraction:

2.2 use of +, − and =

2.3 relationship between addition and subtraction

P1 · Whole Numbers — Addition and Subtraction:

2.7 mental calculation involving addition and subtraction • within 20

P1 · Whole Numbers — Addition and Subtraction:

2.3 relationship between addition and subtraction

2.7 mental calculation involving addition and subtraction

P1 · Whole Numbers:

1.1 counting to tell the number of objects in a given set

P1 · Addition and Subtraction:

2.1 concepts of addition and subtraction

P1 · Whole Numbers — Addition and Subtraction:

2.5 adding and subtracting within 100

2.7 mental calculation involving addition and subtraction • within 20

P1 · Whole Numbers — Addition and Subtraction:

2.2 use of +, – and =

P1 · Whole Numbers (Numbers up to 100):

1.2 number notation, representations and place values (tens, ones)

P1 · Whole Numbers (Numbers up to 100):

1.4 comparing the number of objects in two or more sets

1.5 comparing and ordering numbers

P1 · Whole Numbers — Addition and Subtraction:

2.5 adding and subtracting within 100

2.6 adding and subtracting using algorithms

2.7 mental calculation involving addition and subtraction • of a 2-digit number and ones without renaming • of a 2-digit number and tens

P1 · Whole Numbers (Numbers up to 100):

1.1 counting to tell the number of objects in a given set

1.3 reading and writing numbers in numerals and in words

P1 · Whole Numbers (Numbers up to 100):

1.7 ordinal numbers (first, second, up to tenth) and symbols (1st, 2nd, 3rd, etc.)

P1 · Whole Numbers — Multiplication and Division:

3.1 concepts of multiplication and division

3.2 use of x [multiplication symbol]

3.3 multiplying within 40

3.4 dividing within 20

P1 · Whole Numbers — Addition and Subtraction:

2.5 adding and subtracting within 100

2.7 mental calculation involving addition and subtraction • of a 2-digit number and tens

P1 · Whole Numbers — Addition and Subtraction:

2.7 mental calculation involving addition and subtraction • of a 2-digit number and tens

P1 · Whole Numbers (Numbers up to 100):

1.6 patterns in number sequences

P1 · Measurement — Length: 1.1 measuring length in centimetres 1.4 measuring and drawing a line segment to the nearest cm
P1 · Measurement — Length: 1.3 comparing and ordering lengths in cm
P1 · Measurement — Time: 2.1 telling time to 5 minutes 2.4 duration of one hour/half hour
P1 · Money: 1.1 counting amount of money • in cents up to \$1 • in dollars up to \$100
P1 · Geometry — 2D Shapes: 1.1 identifying, naming, describing and classifying 2D shapes • rectangle • square • triangle • circle • half circle • quarter circle
P1 · Geometry — 2D Shapes: 1.2 forming different 2D figures with • rectangle • square • triangle • half circle • quarter circle 1.3 identifying the 2D shapes that make up a given figure
P2 · Fractions — Fraction of a Whole: 1.1 fraction as part of a whole
P1 · Statistics — Picture Graphs: 1.1 reading and interpreting data from picture graphs
P1 · Statistics — Picture Graphs: 1.1 reading and interpreting data from picture graphs
P1 · Statistics — Picture Graphs: 1.1 reading and interpreting data from picture graphs
P1 · Statistics — Picture Graphs: 1.1 reading and interpreting data from picture graphs

19.2%
57.7%
0.0%
23.1%
0.0%
100.0%

2
0

Alignment	Commentary
Partial	Both build the meaning of addition and subtraction. Singapore computes within 100 (a wider range than Utah's ≤ 20) but its content list does not name the specific problem-type situations or unknown-in-all-positions framing that Utah foregrounds; Singapore places those in its learning experiences rather than the content statements.
Strong	Direct match: Singapore's 'adding more than two 1-digit numbers' is essentially Utah's adding of three whole numbers within 20. Both expect students to combine three addends.
Partial	Singapore explicitly develops the relationship between addition and subtraction (the basis of unknown-addend reasoning) and the use of the = sign, but does not frame subtraction as an unknown-addend problem or require students to justify the unknown. Utah's emphasis is more algebraic.
Partial	Singapore's mental-calculation expectation within 20 encompasses Utah's fluency target within 10; both build flexible, efficient computation with small numbers, but the number range is different (within 10 vs 20). Additionally, Utah explicitly requires students to use strategies and compute flexibly, accurately, and efficiently. Singapore simply states mental calculation, which does not necessarily imply multiple strategies or flexibility.
Weak	Utah explicitly treats properties of addition (e.g., commutativity) as objects of conjecture and as strategies. Singapore does not name properties of addition in its content list; the related/relationship and mental-calculation items rely on those properties implicitly rather than making them explicit content.
Weak	Both develop counting and the concepts of addition/subtraction, but Singapore's content does not explicitly call for connecting counting to the operations; that linkage is a specific Utah learning target.
Partial	Singapore adds and subtracts within 100 and does mental calculation within 20, which subsumes Utah's add/subtract within 20. Utah adds an explicit expectation to connect and justify strategies; Singapore extends to within 100, requiring more advanced place value-based strategies and broader scope/ depth.

Partial	Singapore introduces the = symbol, but Utah goes further—treating the equal sign as a relational symbol and evaluating equations as true or false. That deeper equality reasoning is a Utah-specific emphasis.
Strong	Direct match: both develop tens-and-ones place value for two-digit numbers, including the idea of a 'ten' as a bundle of ten ones.
Partial	Both compare and order numbers, but Singapore's P1 content does not specify the symbolic notation $<$, $=$, $>$ (the symbols are formalized later), which Utah requires explicitly.
Strong	Singapore explicitly covers the same cases Utah lists—two-digit plus ones and two-digit plus tens, within 100—through both algorithms and mental calculation. Utah adds an emphasis on modeling and describing place-value structure.
Partial	Both count objects and write numerals. Singapore caps the range at 100 while Utah extends to 120 and requires counting from any starting number, so the range and starting-point expectations differ. Singapore also lists writing numbers in words and doesn't explicitly link writing numerals with counting objects.
Different Utah grade level	Singapore teaches ordinal numbers and their symbols at P1. Utah Grade 1 has no ordinal-number content, but does include ordinality in Kindergarten.
Different Utah grade level	Major sequencing difference: Singapore introduces multiplication and division concepts already at P1. Utah introduces multiplicative thinking only in Grade 2 (arrays/repeated addition) and formally in Grade 3, so there is no Grade 1 counterpart.
Partial	Singapore's subtraction within 100 and mental subtraction involving tens covers the multiples-of-ten case, but Utah isolates that case and ties it to concrete/pictorial modeling, which Singapore's content does not specify.
Strong	Singapore's mental calculation of a two-digit number and tens directly produces 'ten more/ten less.' Utah adds the expectation to justify using place-value language.
Partial	Singapore addresses patterns in number sequences, which includes counting in tens, but Utah is more specific—counting by tens from any number and articulating the place-value pattern produced.

Weak	Both measure length, but the approach differs: Utah Grade 1 uses non-standard units (iterating a chosen unit), whereas Singapore P1 measures directly in the standard unit (centimetres). The pedagogical entry point is different.
Partial	Both compare and order objects by length. Utah specifically targets indirect (transitive) comparison via a third object and argumentation, while Singapore compares and orders lengths directly in centimetres.
Strong	Strong topic match on telling time. Singapore actually goes finer (to 5 minutes) than Utah's hours and half-hours, so it fully encompasses Utah's expectation, and both treat the half-hour.
Partial	Both work with currency and its values. Utah focuses on identifying coins and their comparative values with cent notation; Singapore counts amounts in cents and dollars. The currencies and the coin-identification emphasis differ.
Partial	Both identify, describe, and classify 2D shapes by their attributes. Utah adds the more analytic distinction between defining and non-defining attributes, which Singapore's content does not state explicitly.
Partial	Singapore composes and decomposes 2D figures, matching the two-dimensional half of Utah's standard. Utah also includes composing with three-dimensional shapes, which Singapore introduces only at P2 (3D solids).
Weak	Partitioning shapes into equal shares is fraction-readiness. Singapore addresses 'fraction as part of a whole' only from Primary 2, so there is no Primary 1 counterpart; the nearest match sits a year later.
Weak	Utah front-loads the full investigative cycle (posing questions, planning collection). Singapore P1 only reads and interprets ready-made picture graphs, so the question-posing/data-collection emphasis has no real counterpart.
Weak	Utah expects students to collect data and construct graphs (including bar graphs). Singapore P1 only reads/interprets picture graphs; building graphs and bar graphs are not P1 content (bar graphs appear at P3).
Partial	Both analyze/interpret a data representation (picture graphs). Utah adds the questioning of the representation and a stated category limit.
Partial	Interpreting picture-graph data overlaps, but Utah's expectation to construct and justify arguments about the data goes beyond Singapore's read-and-interpret content.

Utah strand	Total Utah standards
#OA standards	8
#NBT standards	7
#MG standards	7
#D standards	4
Total	26

Strong	Partial	Weak	Different Singapore grade-level
1	5	2	0
3	4	0	0
1	4	2	0
0	2	2	0
5	15	6	0

Utah only	Different Utah grade level	Singapore only
0	0	0
0	2	0
0	0	0
0	0	0
0	2	0

Domain	Topic
Algebraic Thinking	Addition & Subtraction within 1000
Algebraic Thinking	
Algebraic Thinking	Arrays, repeated addition, & multiplicative structure
Algebraic Thinking	
Algebraic Thinking	
Number & Operation	Addition & Subtraction within 1000
Number & Operation	

Number & Operation	
Number & Operation	Patterns
Number & Operation	
Number & Operation	Place value & base ten
Number & Operation	
Number & Operation	Operations with Fractions
Geometry & Measurement	
Geometry & Measurement	
Geometry & Measurement	
Geometry & Measurement	Measurement in standard units
Geometry & Measurement	

Geometry & Measurement	
Geometry & Measurement	Time
Geometry & Measurement	Money
Geometry & Measurement	Shapes
Geometry & Measurement	Arrays, repeated addition, & multiplicative structure
Geometry & Measurement	Fractions & partitioning
Data Science	Data investigations
Data Science	
Data Science	
Data Science	

of Utah Grade 2 Standards:
25

Utah

2.OA.1 Build and use models to solve one-step addition and subtraction story problems with sums and minuends less than or equal to 100, and two-step addition and subtraction story problems with sums and minuends less than or equal to 20. Add or remove story context to solve problem type situations with unknowns in all positions while attending to the meaning of the equal sign. (MP 2, 4)

2.OA.2 Use strategies and properties to add and subtract flexibly, accurately, and efficiently with sums and minuends less than or equal to 20. Know from memory all sums of two one-digit numbers. (MP 6)

2.OA.3 Describe and represent structures and patterns to determine if a group of up to 20 objects has an odd or even number of items by pairing them or counting by twos. (MP 7)

2.OA.4 Build and use models involving repeated addition to determine the total number of objects in rectangular arrays with up to 5 rows and up to 5 columns. Describe and represent the structures and patterns of the arrays. Make and evaluate conjectures about whether the sums are the same when adding by row or column. (MP 4, 7, 8)

— (No corresponding Utah standard at this grade)

2.NBT.5 Use numerical strategies to determine the sum of up to four two-digit numbers, and the difference of two two-digit numbers flexibly, accurately, and efficiently. Justify a chosen strategy using the relationship between addition and subtraction, properties of addition, and/or place value language. (MP 3, 6)

2.NBT.6 Build and use concrete and pictorial models to determine the sums and differences of three-digit numbers with sums and minuends up to and including 999. Use the models to represent and describe the structure of combining hundreds with hundreds, tens with tens, ones with ones, and composing and decomposing tens and hundreds. Ask questions to compare concrete and pictorial models with efficient numerical strategies. (MP 1, 4, 7)

2.NBT.7 Mentally add and subtract multiples of 10 or 100 from a three-digit number and justify the result using place value language. (MP 3)

2.NBT.2 Count within 1,000, making conjectures about counting patterns; Skip-count by twos, fives, tens, and hundreds. (MP 8)

2.NBT.1 Show place value understanding by bundling ten 10s to make a "hundred." Use a variety of models to represent the amount of hundreds, tens, and ones in a three-digit number. Identify the number of hundreds, tens, and ones in a three-digit number and describe the value of each digit. (MP 4)

2.NBT.3 Read three-digit whole numbers and represent the place value structure in those numbers using numerals, base 10 word form, and expanded form. (MP 7)

2.NBT.4 Compare two three-digit numbers using models and/or place value understanding. Represent the relationship between the two numbers using comparison symbols $<$, $=$, and $>$. (MP 4, 7)

— (No corresponding Utah standard at this grade)

2.MG.1 Select and use appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes to measure the length of objects to the nearest whole unit. (MP 5)

2.MG.2 Describe and represent the length of an object using two different units of measure. Describe the relationship of the two measurements and relate them to the units chosen. (MP 7)

2.MG.3 Construct, justify, and communicate clear and reasonable arguments when estimating lengths using inches, feet, centimeters, and meters. (MP 3)

2.MG.4 Measure with precision to determine how much longer one object is than another. Express the difference in length using a standard unit. (MP 6)

2.MG.5 Build and use a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2,... as a model to represent whole numbers as lengths from zero. Strategically use an open number line as a tool to model and solve whole-number addition and subtraction equations and word problems within 100. (MP 4, 5)

— (No corresponding Utah standard at this grade)

2.MG.6 Attend to precision when telling and writing time to the nearest five minutes. Add context to determine when to use a.m. and p.m., attending to reasonableness. (MP 2, 6)

2.MG.7 Add or remove context when solving problems involving dollar bills, quarters, dimes, nickels, and pennies. (MP 2)

2.MG.8 Ask questions to identify and describe shapes having specific attributes. Build and draw shapes that possess specified attributes. (MP 1)

2.MG.9 Build and use models to partition a rectangle into rows and columns of same-size squares and count to find the total number of squares. (MP 4)

2.MG.10 Describe and represent structures, patterns and relationships when partitioning two-dimensional shapes into two, three, or four equal shares; describe the shares using the words halves, thirds, a fourth of, quarters, etc. identical wholes need not have the same shape. (MP 7)

2.D.1 Determine a topic question and ask investigative questions that will lead to collecting, analyzing, and interpreting data within the context of classroom and grade. (MP 1)

2.D.2 Collect and organize data. Build data visualizations including bar graphs and pictographs with single-unit scales. Ask questions to consider a given data set about a classroom or grade level context, and organize that data using different variables. (MP 1, 4)

2.D.3 Analyze data sets and single-unit scale data visualizations using features such as titles, labels, and legends. Ask questions to make sense of the data. (MP 1)

2.D.4 Interpret data to answer investigative questions. Construct and justify arguments about the data. Make conjectures about the impact missing data may have on interpretation of the data. (MP 3, 8)

Strong alignment
Partial alignment
Different Singapore grade level
Weak alignment
Utah only—No Singapore analog

Different Utah grade level
Singapore only

Singapore
P2 · Whole Numbers — Addition and Subtraction: 2.1 addition and subtraction algorithms (up to 3 digits) 2.2 mental calculation involving addition and subtraction of a 3-digit number and ones/tens/hundreds
P1 · Addition and Subtraction: 2.7 mental calculation involving addition and subtraction • within 20 P2 · Addition and Subtraction: 2.2 mental calculation involving addition and subtraction of a 3-digit number and ones/tens/hundreds
P2 · Whole Numbers (Numbers up to 1000): 1.6 odd and even numbers
P1 · Multiplication and Division: 3.1 concepts of multiplication and division P2 · Multiplication and Division: 3.1 multiplication tables of 2, 3, 4, 5 and 10 3.4 multiplying and dividing within the multiplication tables
P2 · Whole Numbers — Multiplication and Division: 3.1 multiplication tables of 2, 3, 4, 5 and 10 3.2 use of $\div$ 3.3 relationship between multiplication and division 3.4 multiplying and dividing within the multiplication tables 3.5 mental calculation involving multiplication and division within multiplication tables of 2, 3, 4, 5 and 10
P2 · Whole Numbers — Addition and Subtraction: 2.1 addition and subtraction algorithms (up to 3 digits) 2.2 mental calculation involving addition and subtraction of a 3-digit number and ones/tens/hundreds
P2 · Whole Numbers — Addition and Subtraction: 2.1 addition and subtraction algorithms (up to 3 digits)

P2 · Whole Numbers — Addition and Subtraction:

2.2 mental calculation involving addition and subtraction of a 3-digit number and ones/tens/hundreds

P2 · Whole Numbers (Numbers up to 1000):

1.1 counting in tens/hundreds

1.5 patterns in number sequences

P2 · Whole Numbers (Numbers up to 1000):

1.2 number notation, representations and place values (hundreds, tens, ones)

P2 · Whole Numbers (Numbers up to 1000):

1.3 reading and writing numbers in numerals and in words

1.2 number notation, representations and place values (hundreds, tens, ones)

P2 · Whole Numbers (Numbers up to 1000):

1.4 comparing and ordering numbers

P2 · Fractions — Addition and Subtraction:

2.1 adding and subtracting like fractions within one whole with denominators of given fractions not exceeding 12

P2 · Measurement — Length, Mass and Volume:

1.1 measuring • length in metres

1.2 using appropriate units of measurement and their abbreviations m, g, kg, ℓ

P3 · Measurement — Length, Mass and Volume:

1.2 measuring length/mass/volume (of liquid) in compound units

1.3 converting a measurement in compound units to the smaller unit, and vice versa

P2 · Measurement — Length, Mass and Volume:

1.3 comparing and ordering • lengths

P2 · Measurement — Length, Mass and Volume:

1.3 comparing and ordering • lengths

1.1 measuring • length in metres

— (No close match in Singapore Primary 1–3)

P2 · Measurement — Length, Mass and Volume: 1.1 measuring • mass in kilograms/grams • volume of liquid in litres 1.3 comparing and ordering • masses • volumes
P1 · Measurement — Time: 2.1 telling time to 5 minutes 2.2 use of 'am' and 'pm'
P2 · Money: 1.1 counting amount of money in dollars and cents 1.3 comparing two or three amounts of money 1.2 reading and writing money in decimal notation
P1 · Geometry — 2D Shapes: 1.1 identifying, naming, describing and classifying 2D shapes P2 · Geometry — 3D Shapes: 2.1 identifying, naming, describing and classifying 3D shapes • cube • cuboid • cone • cylinder • sphere
P3 · Area and Volume — Area and Perimeter: 1.2 measuring area in square units, cm² and m², excluding conversion between cm² and m²
P2 · Fractions — Fraction of a Whole: 1.1 fraction as part of a whole 1.2 notation and representations of fractions
P2 · Statistics — Picture Graphs with Scales: 1.1 reading and interpreting data from picture graphs with scales
P2 · Statistics — Picture Graphs with Scales: 1.1 reading and interpreting data from picture graphs with scales
P2 · Statistics — Picture Graphs with Scales: 1.1 reading and interpreting data from picture graphs with scales
P2 · Statistics — Picture Graphs with Scales: 1.1 reading and interpreting data from picture graphs with scales

28.0%
48.0%
0.0%
20.0%
4.0%
100.0%

2
1

Alignment
Partial
Partial
Strong
Partial
Singapore only
Partial
Partial

Strong
Strong
Strong
Partial
Partial
Different Utah grade level
Strong
Weak
Weak
Partial
Utah only

Different Utah grade level
Strong
Partial
Partial
Weak
Strong
Weak
Weak
Partial
Partial

Commentary

Singapore's add/subtract algorithms up to 3 digits exceed Utah's number range, but Utah's specific structures—one- and two-step problems, unknowns in all positions, and attention to the equal sign—are embedded in Singapore's pedagogy rather than stated as content.

Same content domain (addition/subtraction mental computation) with overlap within 20, but Singapore extends to 3-digit place value operations, increasing depth and scope beyond Utah's.

Direct match: both introduce odd and even numbers at this grade. Utah specifies the pairing/skip-counting reasoning used to decide parity.

Utah's arrays and repeated addition are the conceptual foundation of multiplication. Singapore develops multiplication concepts at P1 and formal tables at P2, so it is ahead of Utah here; the array/row-column structure is the shared idea.

Singapore teaches formal multiplication tables (2, 3, 4, 5, 10), the division symbol, and division at P2. Utah Grade 2 reaches only array/repeated-addition foundations (2.OA.4) and defers formal multiplication and division to Grade 3.

Same content domain (multi-digit addition and subtraction with place value), but Singapore extends to 3-digit numbers and algorithmic/mental computation, increasing depth beyond Utah's 2-digit, multi-addend strategic reasoning.

Same content domain (3-digit addition and subtraction), but Utah emphasizes conceptual modeling and place value structure, while Singapore focuses on procedural algorithms, resulting in different depth of understanding.

Direct match: Singapore's mental calculation of a three-digit number with tens/hundreds is exactly Utah's mental add/subtract of multiples of 10 or 100. Utah adds the justification expectation.

Same content domain (counting and number patterns within 1,000) with aligned emphasis on skip-counting and sequence structure, differing only in range of counting patterns and level of specificity.

Direct match: both build hundreds/tens/ones place value for three-digit numbers, including the idea of a 'hundred' as ten tens.

Reading three-digit numbers in numerals and words aligns closely. Utah additionally requires expanded form, which Singapore's content list does not name explicitly.

Both compare and order three-digit numbers; Utah additionally requires the symbolic notation $<$, $=$, $>$, which Singapore's content does not specify.

Singapore adds and subtracts like fractions at P2. Utah does not introduce any fraction arithmetic until Grade 3 and beyond.

Both measure length to a whole unit using appropriate standard tools/units. The difference is the measurement system—Utah includes U.S. customary tools (yardsticks) alongside metric, while Singapore is metric (metres).

Utah's idea of expressing one length in two units relates to Singapore's compound-unit measurement and conversion, but Singapore places that content at P3 (a year later) and frames it as unit conversion rather than the inverse unit-size relationship.

Singapore measures and compares lengths but does not list estimation of length as content at this level (estimation/rounding is developed later). Utah's estimate-and-justify focus has only a loose counterpart.

Comparing lengths aligns, but Utah specifically requires quantifying the numerical difference in a standard unit; Singapore's content compares and orders without naming the 'how much longer' difference.

The number line as a representational model is not a named content item in the Singapore syllabus (Singapore relies on the bar/part-whole model). There is no direct content counterpart, though the underlying computation is covered.

Singapore measures and compares mass and volume of liquid at P2. Utah Grade 2 measurement is limited to length; mass and liquid volume are not addressed in Utah standards until Grade 3.
Direct match on content—telling time to five minutes and using a.m./p.m. Singapore teaches this at P1, a year earlier than Utah.
Both solve money problems in dollars and cents. The denominations/currency differ (U.S. coins and bills vs. Singapore dollars), and Singapore additionally introduces decimal money notation, which Utah does not at Grade 2.
Identifying and describing shapes by attributes is shared, but Singapore distributes it across levels—2D shapes at P1 and 3D solids at P2—whereas Utah's standard is a general continuation of shape-attribute work.
Partitioning a rectangle into equal squares and counting them is the array/area foundation. Singapore formalizes area in square units at P3, so the closest match sits a year later and is framed as area measurement rather than array structure.
Both establish unit fractions as equal parts of a whole at this grade. Utah approaches it by partitioning shapes and naming the shares; Singapore approaches it as 'fraction as part of a whole' with notation.
Singapore reads and interprets scaled picture graphs but does not include posing investigative questions or planning data collection, which is the core of this Utah standard.
Both touch scaled pictographs, but Utah expects students to collect, organize, and build the graphs (including bar graphs), whereas Singapore P2 only reads and interprets picture graphs with scales.
Both analyze/interpret scaled picture graphs; Utah adds explicit attention to graph features (titles, labels, legends) and questioning.
Interpreting scaled picture-graph data overlaps, but Utah's argumentation and reasoning about missing data extend well beyond Singapore's read-and-interpret content.

Utah strand

Total Utah
standards

#OA standards	4
#NBT standards	7
#MG standards	10
#D standards	4
Total	25

Strong	Partial	Weak	Different Singapore grade-level
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1	3	0	0
3	4	0	0
3	3	3	0
0	2	2	0
7	12	5	0

Utah only	Different Utah grade level	Singapore only
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0	0	1
0	1	0
1	1	0
0	0	0
1	2	1

Domain	Topic
Algebraic Thinking	Basic fact fluency
Algebraic Thinking	Multiplication & division within 100
Algebraic Thinking	
Algebraic Thinking	
Algebraic Thinking	
Algebraic Thinking	
Algebraic Thinking	
Algebraic Thinking	
Number & Operation	

Number & Operation	Place Value
Number & Operation	Estimation & rounding
Number & Operation	Addition & subtraction within 1000 & place value
Number & Operation	Fractions as numbers
Number & Operation	
Number & Operation	Comparing fractions
Number & Operation	
Geometry & Measurement	Area and perimeter
Geometry & Measurement	

Geometry & Measurement	
Geometry & Measurement	
Geometry & Measurement	
Geometry & Measurement	Time
Geometry & Measurement	
Geometry & Measurement	Length, mass, volume, & time
Geometry & Measurement	
Geometry & Measurement	Unit Conversion
Geometry & Measurement	Lines and Angles

Geometry & Measurement	Lines and Angles
Geometry & Measurement	Money
Data Science	Data investigations
Data Science	
Data Science	
Data Science	

of Utah Grade 3 Standards:
27

Utah
3.OA.6 Multiply and divide flexibly, accurately, and efficiently, with products, dividends, and divisors up to and including 100, and quotients up to and including 10. Know from memory all products of two one-digit numbers. (MP 6)
3.OA.1 Build and use models to find and interpret the products of whole numbers. (MP 4)
3.OA.2 Build and use models to find and interpret whole-number quotients. (MP 4)
3.OA.3 Solve multiplication and division story problems with products or dividends less than or equal to 100 and whole number quotients, using a variety of models. Add or remove context to solve situations involving equal groups, arrays, and measurement quantities. (MP 2, 4)
3.OA.4 Evaluate the unknown whole number in a multiplication or division equation. Represent division as an unknown-factor problem, and describe the relationship between multiplication and division. (MP 7)
3.OA.5 Make and assess conjectures about the properties of multiplication. Add context to make sense of these properties as strategies to multiply and divide with products and dividends less than or equal to 100. (MP 2, 8)
3.OA.7 Build and use models to solve two-step story problems involving whole numbers and having whole-number answers using the four operations, and attend to the reasonableness of answers. Remove context to represent situations as equations with a variable standing in for the unknown quantity. (MP 2, 4, 6)
3.NBT.4 Find the product of a one-digit whole number and a multiple of 10 (10–90). Make and test conjectures to generalize patterns that occur when multiplying by a multiple of ten. (MP 8)

3.NBT.1 Describe and represent place value structure by bundling ten 100s to make a thousand. Represent the amount of thousands, hundreds, tens, and ones in a 4-digit number, and describe the value of each. (MP 7)

3.NBT.2 Use models to round 2- or 3-digit whole numbers to the nearest 10 or 100 in and out of context. Determine if rounding is appropriate for a given situation and justify the reasoning. (MP 2, 3, 4)

3.NBT.3 Determine sums and differences of three-digit whole numbers using numerical strategies flexibly, accurately, and efficiently. Justify a chosen strategy with place value language. (MP 3, 6)

3.NF.1 Describe and represent a fraction, $\frac{a}{b}$, as a numerator and a non-zero denominator, including unit fractions and fractions equal to whole numbers. Compose and decompose a fraction using unit fractions. Identify the meaning of the whole for a given context. (MP 7)

3.NF.2 Build and use number line models to represent fractions, using unit fractions as intervals. Connect number line models with area models to make sense of fractions. (MP 4)

3.NF.3 Build and use models to make sense of and generate equivalent fractions including whole numbers. Justify why equivalent fractions must reference the same whole to be equivalent. (MP 3, 4)

3.NF.4 Compare fractions with like numerators or like denominators, and justify the comparisons using models and/or by reasoning about their size. (MP 3, 4)

3.MG.4 Recognize area and perimeter as attributes of plane figures. Build and use models to understand the concept of unit squares and area. Select and use tools strategically and appropriately to distinguish between linear (perimeter) and area measures. Use tiling to show that the area of a rectangle is the same as would be found by multiplying side lengths. (MP 4, 5)

3.MG.5 Build and use area models to represent the distributive property and relate the representations to the operations of addition and multiplication. (MP 4)

3.MG.6 Add and remove context to solve real-world and mathematical problems involving perimeters of simple polygons and rectangular areas. Make and evaluate conjectures about rectangles with the same perimeter and different areas or with the same area and different perimeters. Describe how area and perimeter are related. (MP 4, 8)

3.MG.7 Describe and represent shared attributes of shapes in a category, and recognize that the shared attributes define the larger category. Build models of quadrilaterals that do not belong to a given subcategory. (MP 4, 7)

3.MG.8 Attend to precision when partitioning shapes into parts with equal areas and expressing the area of each part as a unit fraction of the whole. (MP 6)

3.MG.2 Attend to precision when telling and writing time to the nearest minute. (MP 6)

— (No corresponding Utah standard at this grade)

3.MG.1 Make reasonable estimates about length, weight, and liquid volume. Select and use tools appropriately and strategically to find precise measurements. (MP 5, 6)

3.MG.3 Add or remove context to solve one-step story problems involving length, liquid volume, mass, and time. (MP 6)

— (No corresponding Utah standard at this grade)

— (No corresponding Utah standard at this grade)

— (No corresponding Utah standard at this grade)
— (No corresponding Utah standard at this grade)
3.D.1 Determine a topic question and ask investigative questions that will lead to collecting, analyzing, and interpreting data. Identify whether the question asked will result in quantitative or categorical data. (MP 1)
3.D.2 Select and use tools strategically to collect and organize data. Build data visualizations using scales of 2s, 5s, and 10s. Represent a data set with three or more categories. Ask questions to consider a given data set. Identify data as quantitative or categorical. (MP 1, 5)
3.D.3 Make and evaluate conjectures about benefits and drawbacks of different visualizations and scales used to analyze a set of data. (MP 6, 8)
3.D.4 Interpret data, including scaled visualizations, to answer investigative questions. Construct and justify arguments about the data. Identify patterns, trends, and outliers in the data. Identify ways to refine investigative questions, data collection, visualization, or analysis. (MP 3)

Strong alignment
Partial alignment—Utah deeper
Different grade level
Weak alignment
Utah only—No Massachusetts analog

Different Utah grade level
Singapore only

Singapore
P2 · Multiplication and Division: 3.1 multiplication tables of 2, 3, 4, 5 and 10 P3 · Multiplication and Division: 3.1 multiplication tables of 6, 7, 8 and 9 3.2 multiplying and dividing within the multiplication tables
P2 · Multiplication and Division: 3.4 multiplying and dividing within the multiplication tables P3 · Multiplication and Division: 3.4 multiplication and division algorithms (up to 3 digits by 1 digit)
P2 · Multiplication and Division: 3.2 use of $\div$ P3 · Multiplication and Division: 3.3 division with remainder 3.4 multiplication and division algorithms (up to 3 digits by 1 digit)
P2 · Multiplication and Division: 3.4 multiplying and dividing within the multiplication tables P3 · Multiplication and Division: 3.4 multiplication and division algorithms (up to 3 digits by 1 digit)
P2 · Multiplication and Division: 3.3 relationship between multiplication and division
P2 · Multiplication and Division: 3.3 relationship between multiplication and division 3.5 mental calculation involving multiplication and division within multiplication tables of 2, 3, 4, 5 and 10
P3 · Whole Numbers — Addition/Subtraction and Multiplication/Division (all four operations across the P3 Whole Numbers sub-strand)
P3 · Multiplication and Division: 3.4 multiplication and division algorithms (up to 3 digits by 1 digit)

P3 · Whole Numbers (Numbers up to 10 000): 1.2 number notation, representations and place values (thousands, hundreds, tens, ones) 1.1 counting in hundreds/thousands
— (No close match in Singapore Primary 1–3)
P3 · Whole Numbers — Addition and Subtraction: 2.1 addition and subtraction algorithms (up to 4 digits) 2.2 mental calculation involving addition and subtraction of two 2-digit numbers
P2 · Fractions — Fraction of a Whole: 1.1 fraction as part of a whole 1.2 notation and representations of fractions
P2 · Fractions — Fraction of a Whole: 1.2 notation and representations of fractions
P3 · Fractions — Equivalent fractions: 1.1 equivalent fractions 1.2 expressing a fraction in its simplest form 1.4 writing the equivalent fraction of a fraction given the denominator or the numerator
P2 · Fractions — Fraction of a Whole: 1.3 comparing and ordering fractions with denominators of given fractions not exceeding 12 • unit fractions • like fractions
P3 · Fractions — Equivalent fractions: 1.3 comparing and ordering unlike fractions with denominators of
P3 · Area and Volume — Area and Perimeter: 1.1 concepts of area and perimeter of a plane figure 1.2 measuring area in square units, cm² and m², excluding conversion between cm² and m² 1.4 area of rectangle/square
P3 · Area and Volume — Area and Perimeter: 1.4 area of rectangle/square

P3 · Area and Volume — Area and Perimeter: 1.3 perimeter of • rectilinear figure • rectangle • square 1.4 area of rectangle/square
P1 · Geometry — 2D Shapes: 1.1 identifying, naming, describing and classifying 2D shapes
P2 · Fractions — Fraction of a Whole: 1.1 fraction as part of a whole P3 · Area and Volume — Area and Perimeter: 1.1 concepts of area and perimeter of a plane figure
P2 · Measurement — Time: 2.1 telling time to the minute
P3 · Measurement — Time: 2.3 24-hour clock
P2 · Measurement — Length, Mass and Volume: 1.1 measuring • length in metres • mass in kilograms/grams • volume of liquid in litres P3 · Measurement — Length, Mass and Volume: 1.1 measuring • length in kilometres (km) • volume of liquid in millilitres (ml)
P3 · Measurement — Length, Mass and Volume: 1.2 measuring length/mass/volume (of liquid) in compound units 1.3 converting a measurement in compound units to the smaller unit, and vice versa P3 · Measurement — Time: 2.2 finding the starting time, finishing time or duration given the other two quantities
P3 · Measurement — Length, Mass and Volume: 1.2 measuring length/mass/volume (of liquid) in compound units 1.3 converting a measurement in compound units to the smaller unit, and vice versa • kilometres and metres • metres and centimetres • kilograms and grams • litres and millilitres
P3 · Geometry — Angles: 1.1 concepts of angle 1.2 right angles, angles greater than/smaller than a right angle

P3 · Geometry — Perpendicular and Parallel Lines: 2.1 perpendicular and parallel lines 2.2 drawing perpendicular and parallel lines
P3 · Money: 1.1 adding and subtracting money in decimal notation
P3 · Statistics — Bar Graphs: 1.1 reading and interpreting data from bar graphs
P3 · Statistics — Bar Graphs: 1.1 reading and interpreting data from bar graphs 1.2 using different scales on axis
P3 · Statistics — Bar Graphs: 1.1 reading and interpreting data from bar graphs 1.2 using different scales on axis
P3 · Statistics — Bar Graphs: 1.1 reading and interpreting data from bar graphs

44. 4%
29. 6%
0. 0%
22. 2%
3. 7%
100. 0%

3
2

Alignment
Strong
Strong
Strong
Strong
Partial
Weak
Weak
Partial

Strong
Utah only
Strong
Strong
Partial
Strong
Strong
Strong
Weak

Strong
Weak
Weak
Strong
Singapore only
Partial
Partial
Singapore only
Different Utah grade level

Different Utah grade level
Different Utah grade level
Weak
Partial
Partial
Partial

Commentary
Knowing all products of two one-digit numbers equals mastery of the full multiplication tables. Singapore completes the tables across P2 (2, 3, 4, 5, 10) and P3 (6, 7, 8, 9), matching Utah's fluency target.
Both develop multiplication of whole numbers and the meaning of a product. Singapore introduces multiplication earlier (tables at P2) and extends to multiplication algorithms at P3.
Both develop division and the meaning of a quotient. Singapore goes further at P3 with division involving remainders, which Utah's Grade 3 standards (whole-number quotients) do not explicitly include.
Multiplication and division within 100 (table facts, products up to 10×10) plus problem solving aligns well; Singapore's multiplication-table work and algorithms cover Utah's range, and word problems are central to both.
Singapore explicitly develops the relationship between multiplication and division, which is the heart of this standard. Utah adds the algebraic framing—solving for an unknown and viewing division as an unknown-factor problem—that Singapore's content does not state.
Utah treats the properties of multiplication (commutative, associative, distributive, identity, zero) as explicit objects of reasoning and strategy. Singapore does not name these properties as content; they are used implicitly within table and mental-calculation work.
Singapore develops all four operations at P3, supporting multi-step word problems (a Singapore strength via the bar model). However, two-step problems and representing situations with a variable/equation are not named as content statements; Utah's algebraic representation goal is its own emphasis.
Multiplying by a multiple of ten falls within Singapore's multiplication work, but Singapore does not isolate the 'one-digit $\times$ multiple of 10' case or the pattern-generalization goal that Utah states.

Direct match: both build four-digit place value (thousands/hundreds/tens/ones), including a 'thousand' as ten hundreds.
Rounding is not part of the Singapore P1–P3 content; Singapore introduces rounding and estimation of whole numbers at P4. There is no Primary 1–3 counterpart.
Singapore's add/subtract algorithms (up to 4 digits) cover and exceed Utah's three-digit fluency; both expect efficient, accurate computation. Utah adds the justify-with-place-value expectation.
Both establish a fraction as numerator/denominator and as part of a whole, with notation. Singapore introduces this at P2; Utah introduces it at Grade 3 and emphasizes composing/decomposing with unit fractions.
Singapore represents fractions, primarily with part-whole/area models. The specific number-line representation of fractions—and connecting it to area models—is a Utah emphasis not named in Singapore's content.
Direct match: both develop equivalent fractions at this grade. Singapore additionally requires simplest form; Utah adds the justification about referencing the same whole.
Both compare and order fractions. Singapore covers unit and like fractions at P2 and unlike fractions at P3, encompassing Utah's like-numerator/like-denominator comparisons. Utah adds the justification expectation.
Direct match: both introduce area and perimeter as attributes, the unit-square concept, and the area of a rectangle (relating tiling/array to side-length multiplication).
Utah uses the area model to represent the distributive property—a multiplicative-reasoning goal. Singapore's area content is measurement-focused and does not connect area models to the distributive property.

Both solve area and perimeter problems for rectangles and rectilinear figures. Utah additionally investigates the same-area/different-perimeter (and vice versa) relationship.
Singapore classifies 2D shapes at a basic level in P1. Utah's category/subcategory (hierarchical) reasoning about quadrilaterals is more advanced and is not part of Singapore's P1–P3 geometry content.
Utah explicitly links equal-area partitions to unit fractions of the whole. Singapore has both fraction-as-part-of-a-whole (P2) and area (P3) but does not connect equal-area partitioning to unit fractions as stated content.
Direct match: telling time to the nearest minute. Singapore teaches this at P2, a year earlier than Utah.
Singapore introduces the 24-hour clock at P3. Utah standards have no 24-hour clock content.
Both measure length, mass, and liquid volume with appropriate tools (Singapore from P2). Utah adds the explicit expectation to estimate these quantities, which Singapore's content does not name at this level.
Singapore solves measurement problems involving length, mass, volume, and time (including compound units and time-duration problems). The match is close in topic; Singapore frames much of it through unit conversion.
Singapore measures in compound units and converts between units at P3. Utah Grade 3 does not address unit conversion (it solves one-step measurement problems without formal compound-unit conversion).
Singapore introduces the concept of angles and right angles at P3. Utah does not address angles at Grade 3 (angle concepts appear in later Utah grades).

Singapore introduces perpendicular and parallel lines at P3. Utah introduces perpendicular/parallel-line content in Grade 4.

Singapore works with money in decimal notation at P3. Utah has no money strand at Grade 3 (Utah addresses coins in Grade 1 and money problems in Grade 2, without decimal notation).

Singapore reads and interprets bar graphs but does not include posing investigative questions or distinguishing quantitative from categorical data, which is the focus of this Utah standard.

Both work with bar graphs that use different scales. Utah expects students to collect and build the graphs and to classify data types, whereas Singapore reads and interprets bar graphs with varied scales.

Both analyze bar graphs with varied scales. Utah additionally asks students to evaluate the trade-offs of different visualizations and scales, which goes beyond Singapore's read-and-interpret content.

Interpreting scaled bar graphs overlaps, but Utah's argumentation, attention to patterns/trends/outliers, and refinement of the investigation extend well beyond Singapore's content.

Utah strand	Total Utah standards
#OA standards	7
#NBT standards	4
#NF standards	4
#MG standards	8
#D standards	4
Total	27

Strong	Partial	Weak	Different Singapore grade-level
4	1	2	0
2	1	0	0
3	1	0	0
3	2	3	0
0	3	1	0
12	8	6	0

Utah only	Different Utah grade level	Singapore only
0	0	0
1	0	0
0	0	0
0	3	2
0	0	0
1	3	2

Domain	Topic
Algebraic Thinking	Solve multiplication problems
Algebraic Thinking	
Algebraic Thinking	Solve problems using the four operations
Algebraic Thinking	
Algebraic Thinking	Factors and multiples
Algebraic Thinking	Generate & describe patterns
Number & Operations	Place value to millions
Number & Operations	

Number & Operations	
Number & Operations	
Number & Operations	Add and subtract whole numbers
Number & Operations	Multi-digit multiplication / division
Number & Operations	
Number & Operations	Decimal Multiplication & Division
Number & Operations	Equivalent fractions / composing & decomposing fractions
Number & Operations	
Number & Operations	
Number & Operations	

Number & Operations	Add/subtract fractions with like denominators
Number & Operations	Multiply fraction by whole number
Number & Operations	Decimals to hundredths
Number & Operations	
Number & Operations	
Geometry & Measurement	Area & perimeter
Geometry & Measurement	Angles & lines
Geometry & Measurement	
Geometry & Measurement	

Geometry & Measurement	Angles & lines
Geometry & Measurement	
Geometry & Measurement	Symmetry
Geometry & Measurement	Nets and Solids
Data Science	Data investigations
Data Science	
Data Science	
Data Science	

of Utah Grade 4 Standards:
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Utah
4.OA.1 Build and use models to visualize a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations. (MP 4, 7)
4.OA.2 Solve story problems involving multiplicative comparison by building and using models, including drawings and equations with a symbol for the unknown number. Make and evaluate conjectures about the difference between multiplicative and additive comparison. (MP 4, 8)
4.OA.3 Use and name properties of operations to justify strategies used to solve problems involving the four operations. (MP 3)
4.OA.4 Build and use models to solve multi-step story problems involving whole numbers using the four operations, including problems in which remainders must be interpreted. Attend to the reasonableness of answers. Remove context to represent situations as equations with a variable standing in for the unknown quantity. (MP 2, 4, 6)
4.OA.5 Find factors and multiples of whole numbers. Make and test conjectures about the relationship between any whole number and its factors. (MP 8)
4.OA.6 Generate a number or shape pattern based on a given rule. Describe and represent the features of the pattern that are not explicitly stated in the rule itself. Make and test conjectures about how the pattern will continue. (MP 7, 8)
4.NBT.1 Describe the structure of place value by explaining how the value of one place represents ten times more than the place to its right. Represent those patterns with a statement of multiplicative comparison. (MP 7)
4.NBT.2 Read multi-digit whole numbers up to and including 1,000,000. Represent multi-digit whole numbers using numerals and expanded form. (MP 7)

4.NBT.3 Compare two whole numbers with up to 6 digits and represent the relationship between two numbers using comparison symbols $<$, $=$, and $>$. (MP 7)

4.NBT.4 Apply knowledge of place value structure to round whole numbers up to and including six digits in and out of context. Justify whether rounding is appropriate in a given situation. (MP 2, 3)

4.NBT.5 Use efficient algorithms to determine sums and differences of multi-digit whole numbers in real-world contexts and equations flexibly, accurately, and efficiently. Determine if sums and differences are reasonable. (MP 2, 6)

4.NBT.6 Develop visual and numerical models based on place value and/or the properties of multiplication to multiply a whole number of up to four digits by a one-digit whole number, and to multiply two two-digit numbers. (MP 4)

4.NBT.7 Develop visual and numerical models based on place value and/or the relationship between multiplication and division to divide up to a three-digit number by a one-digit number. (MP 4)

— (No corresponding Utah standard at this grade)

4.NF.1 Compose and decompose fractions, mixed numbers and fractions greater than one by building and using models. Represent fractions as the sum of fractions with the same denominator in more than one way. Justify the equivalence with equations. Recognize that a value can be expressed as a fraction greater than one and an equivalent mixed number. (MP 3, 4)

4.NF.2 Recognize and generate equivalent fractions, connecting numerical strategies to visual fraction models. Make and test conjectures about what happens to a fraction when the numerator and the denominator are multiplied by the same number. (MP 8)

4.NF.3 Compare and order fractions with different numerators and denominators. Construct and communicate arguments that justify the order of the fractions. (MP 3)

— (No corresponding Utah standard at this grade)

4.NF.4 Build and use models to add and subtract fractions with like denominators, including mixed numbers. Solve problems involving addition and subtraction of fractions in real world contexts and equations. (MP 2, 4)

4.NF.5 Build and use models to extend understanding of multiplication to fractions. Connect repeated addition to multiplication when multiplying a fraction by a whole number. Multiply a fraction by a whole number using numerical strategies. Solve problems involving multiplying a fraction by a whole number in real world contexts. (MP 2, 4)

4.NF.6 Build and use models to express a fraction with denominator of 10 as an equivalent fraction with denominator of 100, and use this technique to add two fractions with respective denominators of 10 and 100. (MP 4)

4.NF.7 Connect decimal notation to fractions with denominators of 10 or 100. Construct clear and reasonable arguments to justify how the decimal notation and fraction are equivalent. (MP 3)

4.NF.8 Compare two decimal numbers to the hundredths place by reasoning about their size. Justify the comparison. Represent the relationship between two numbers using comparison symbols $<$, $=$, and $>$. (MP 3, 7)

4.MG.1 Add and remove context to solve real-world and mathematical problems involving the area and perimeter of rectangles and rectilinear shapes. Build and use models to make sense of the area and perimeter formulas for rectangles. (MP 2, 4)

4.MG.2 Draw points, lines, line segments, rays, angles (right, acute, and obtuse), and perpendicular and parallel lines. Describe these structures and their relationships within two-dimensional figures. (MP 7)

4.MG.3 Describe angles as geometric figures formed by two rays with a common endpoint. Understand that an angle is measured with reference to a circle. Describe the relationship between an angle's measure and the fraction of the circular arc that it represents. (MP 7)

4.MG.4 Attend to precision and reasonableness when measuring or sketching angles in whole-number degrees using a protractor. (MP 6)

4.MG.5 Understand and demonstrate the additive nature of angle measures. Find and justify unknown angles on a diagram using addition and subtraction. (MP 3)

4.MG.6 Compare and classify two-dimensional figures including quadrilaterals and triangles based on the presence or absence of parallel lines, perpendicular lines, and angles of specified sizes. Justify and evaluate the classification. (MP 3)

— (No corresponding Utah standard at this grade)

— (No corresponding Utah standard at this grade)

4.D.1 Determine a topic question and ask investigative questions that will lead to collecting, analyzing, and interpreting data with up to two variables. Make conjectures about the impact of the sampling process and sample size on results. (MP 1, 8)

4.D.2 Select and use tools strategically to collect and organize data. Build data visualizations. Ask questions to consider a given data set with up to two variables. (MP 1, 5)

4.D.3 Analyze data and data visualizations. Evaluate conjectures about how different sampling processes or data visualizations might influence interpretation of data. (MP 6, 8)

4.D.4 Interpret data and data visualizations to answer investigative questions. Construct and justify arguments about the data. Discuss ways that the sampling process and sample size may affect how people draw conclusions from data. Identify ways to refine investigative questions, data collection, visualization, or analysis. (MP 3)

Strong alignment
Partial alignment
Different Singapore grade level
Weak alignment
Utah only—No Singapore analog

Different Utah grade level
Singapore only

Singapore
P4 · Whole Numbers — Four Operations: 3.1 multiplication algorithm • up to 4 digits by 1 digit • up to 3 digits by 2 digits
P4 · Whole Numbers — Four Operations: 3.1 multiplication algorithm • up to 4 digits by 1 digit • up to 3 digits by 2 digits 3.2 division algorithm (up to 4 digits by 1 digit)
P4 · Whole Numbers — Four Operations: 3.1 multiplication algorithm 3.2 division algorithm P5 · Whole Numbers — Four Operations: 2.2 order of operations without calculator 2.3 use of brackets without calculator
P4 · Whole Numbers — Four Operations: 3.1 multiplication algorithm 3.2 division algorithm (up to 4 digits by 1 digit) P3 · Multiplication and Division: 3.3 division with remainder
P4 · Whole Numbers — Factors and Multiples: 2.1 factors, multiples and their relationship 2.2 determining if a 1-digit number is a factor of a given number within 100 2.3 finding the common factors of two given numbers 2.4 determining if a number is a multiple of a given 1-digit number 2.5 finding the common multiples of two given 1-digit numbers
P4 · Whole Numbers — Numbers up to 100 000: 1.4 patterns in number sequences
P4 · Whole Numbers — Numbers up to 100 000: 1.1 number notation, representations and place values (ten thousands, thousands, hundreds, tens, ones)
P4 · Whole Numbers — Numbers up to 100 000: 1.1 number notation, representations and place values 1.2 reading and writing numbers in numerals and in words P5 · Whole Numbers — Numbers up to 10 million: 1.1 reading and writing numbers in numerals and in words

P4 · Whole Numbers — Numbers up to 100 000: 1.3 comparing and ordering numbers
P4 · Whole Numbers — Numbers up to 100 000: 1.5 rounding numbers to the nearest 10, 100 or 1000 1.6 use of $\approx$
P3 · Whole Numbers — Addition and Subtraction: 2.1 addition and subtraction algorithms (up to 4 digits) 2.2 mental calculation involving addition and subtraction of two 2-digit numbers
P4 · Whole Numbers — Four Operations: 3.1 multiplication algorithm • up to 4 digits by 1 digit • up to 3 digits by 2 digits
P4 · Whole Numbers — Four Operations: 3.2 division algorithm (up to 4 digits by 1 digit)
P4 · Decimals — Multiplication and Division: 3.1 multiplying and dividing decimals (up to 2 decimal places) by a 1-digit whole number 3.2 dividing a whole number by a whole number with quotient as a decimal 3.3 rounding answers to a specified degree of accuracy
P4 · Fractions — Mixed Numbers and Improper Fractions: 1.1 mixed numbers, improper fractions and their relationship
P3 · Fractions — Equivalent fractions: 1.1 equivalent fractions 1.2 expressing a fraction in its simplest form 1.4 writing the equivalent fraction of a fraction given the denominator or the numerator
P3 · Fractions — Equivalent fractions: 1.3 comparing and ordering unlike fractions with denominators of given fractions not exceeding 12
P4 · Fractions — Fraction of a Set: 2.1 fraction as part of a set

P4 · Fractions — Addition and Subtraction: 3.1 adding and subtracting fractions with denominators of given fractions not exceeding 12 and not more than two different denominators P5 · Fractions — Four Operations: 2.1 adding and subtracting mixed numbers
P5 · Fractions — Four Operations: 2.2 multiplying a proper/improper fraction and a whole number without calculator 2.5 multiplying a mixed number and a whole number
P4 · Decimals — Decimals up to 3 decimal places: 1.3 expressing decimals as fractions 1.4 expressing fractions as decimals when the denominator is a factor of 10 or 100
P4 · Decimals — Decimals up to 3 decimal places: 1.3 expressing decimals as fractions 1.4 expressing fractions as decimals when the denominator is a factor of 10 or 100
P4 · Decimals — Decimals up to 3 decimal places: 1.2 comparing and ordering decimals
P4 · Area and Volume — Area and Perimeter: 1.1 finding one dimension of a rectangle given the other dimension and its area/perimeter 1.2 finding the length of one side of a square given its area/perimeter 1.3 finding the area and perimeter of composite figures made up of rectangles and squares
P4 · Geometry — Angles: 1.3 drawing an angle of given size P3 · Geometry — Perpendicular and Parallel Lines (drawing/identifying perpendicular and parallel lines)
P4 · Geometry — Angles: 1.1 using notation such as $\angle ABC$ and $\angle a$ to name angles 1.2 measuring angles in degrees
P4 · Geometry — Angles: 1.2 measuring angles in degrees 1.3 drawing an angle of given size

P5 · Geometry — Angles: 1.1 angles on a straight line 1.2 angles at a point 1.3 vertically opposite angles 1.4 finding unknown angles
P4 · Geometry — Rectangle and Square: 2.1 properties of rectangle and square, excluding diagonal properties P5 · Geometry — Triangle / Parallelogram, Rhombus and Trapezium: 2.1 properties of isosceles, equilateral, right-angled triangle 3.1 properties of parallelogram, rhombus, trapezium
P4 · Geometry — Line Symmetry: 3.1 identifying symmetric figures 3.2 determining whether a straight line is a line of symmetry of a symmetric figure 3.3 completing a symmetric figure with respect to a given line of symmetry on square grid
P4 · Geometry — Nets: 4.1 identifying 2D representations of cube, cuboid, cone, cylinder, prism, pyramid 4.2 drawing 2D representations of cube, cuboid, prism, pyramid 4.3 identifying the nets of 3D solids 4.4 identifying the solid which can be formed by a given net
— (No close match in Singapore Primary 4–6)
P4 · Statistics — Tables, Line Graphs and Pie Charts: 1.1 completing a table from given data 1.2 reading and interpreting data from tables/line graphs/pie charts
P4 · Statistics — Tables, Line Graphs and Pie Charts: 1.2 reading and interpreting data from tables/line graphs/pie charts
P4 · Statistics — Tables, Line Graphs and Pie Charts: 1.2 reading and interpreting data from tables/line graphs/pie charts

38.7%
38.7%
0.0%
22.6%
0.0%
100.0%

1
3

Alignment
Weak
Weak
Weak
Partial
Strong
Partial
Partial
Partial

Strong
Strong
Partial
Strong
Strong
Singapore only
Partial
Strong
Strong
Singapore only

Strong

Partial

Weak

Strong

Strong

Strong

Partial

Weak

Strong

Partial

Partial

Singapore only

Different Utah grade
level

Weak

Partial

Weak

Partial

Commentary
Singapore develops multiplication thoroughly (introduced in P1–P2 and extended to formal algorithms by P4), but it does not frame multiplication as a comparison or ask students to translate verbal multiplicative-comparison statements into equations. That 'times as many' framing is a Utah-specific learning target.
Singapore solves multiplication and division word problems (largely via the model/bar method in its learning experiences), but the explicit distinction between multiplicative and additive comparison, and conjecturing about it, is not part of the Singapore content statements.
The properties of operations underlie Singapore's algorithms and its later order-of-operations work, but Singapore does not name the properties or require students to use them to justify strategies. Utah makes this explicit and argument-based.
Both expect multi-step, four-operation problem solving with remainders (Singapore introduces division with remainder in P3). Singapore names the algorithms and embeds problem solving in its learning experiences, but does not call for representing situations as equations with a variable, which is Utah's more algebraic emphasis.
Direct content match. Singapore's Factors and Multiples sub-strand covers factors, multiples, and their relationship at the same grade. Utah adds an explicit conjecture-and-test stance.
Singapore addresses number-sequence patterns, but not shape patterns, rule-based generation, or the conjecturing about features 'not explicitly stated' that Utah emphasizes.
Singapore develops place value for numbers to 100 000, but does not state the 'ten times the place to its right' multiplicative-comparison structure as explicit content; Utah foregrounds that relationship.
Both read and represent multi-digit whole numbers. Ranges differ: Singapore reaches 100 000 at P4 and 10 million at P5, while Utah caps Grade 4 at 1,000,000. Singapore expresses numbers in words rather than Utah's 'expanded form'.

Both compare and order multi-digit whole numbers in essentially the same range (Singapore's 100 000 is a six-digit number). Singapore does not explicitly name the $<$, $=$, $>$ symbols, but the skill is the same.
Both round multi-digit whole numbers and use the approximation idea. Utah additionally asks students to justify whether rounding is appropriate.
Singapore masters multi-digit addition and subtraction algorithms a year earlier, in P3. The content match is strong but the grade placement differs, and Utah's reasonableness/efficiency framing is more explicit.
Direct match at the same grade. Singapore's multiplication algorithm covers up to four digits by one digit and up to three digits by two digits, encompassing Utah's range.
Direct match at the same grade. Singapore's division algorithm (up to four digits by one digit) covers and exceeds Utah's up-to-three-digit-by-one-digit range.
Singapore multiplies and divides decimals already in P4. Utah defers decimal multiplication and division to Grade 5, so there is no Grade 4 counterpart.
Both connect fractions greater than one with mixed numbers at the same grade. Singapore does not list composing/decomposing a fraction as a sum of same-denominator fractions or justifying the equivalence with equations.
Strong content match; Singapore develops equivalent fractions in P3, a year before Utah's Grade 4. Utah frames the multiply-numerator-and-denominator rule as a conjecture to test.
Strong content match (Singapore in P3): comparing and ordering unlike fractions. Utah adds the requirement to construct and justify arguments for the ordering.
Singapore explicitly teaches 'fraction of a set' in P4. Utah's Grade 4 fraction standards focus on part-whole, equivalence, ordering, and operations, without a distinct fraction-of-a-set content target.

Both add and subtract fractions at the same grade. Singapore already allows up to two different (unlike) denominators in P4 — slightly ahead of Utah's like-denominator focus — and adds mixed-number addition/subtraction in P5.
The content matches, but Singapore sequences fraction-by-whole-number multiplication a year later, in P5; Utah introduces it in Grade 4.
Singapore handles tenths and hundredths primarily through decimal notation rather than through the specific fraction-equivalence-and-addition technique (denominators 10 and 100) that Utah describes.
Direct match at the same grade: Singapore converts between decimals and fractions with denominators that are factors of 10 or 100. Utah adds the justification of equivalence.
Direct match at the same grade. Singapore compares and orders decimals (to three decimal places). Utah specifies the $<$, $=$, $>$ symbols and a justification.
Strong match: both work area and perimeter of rectangles and composite (rectilinear) figures. Singapore even includes inverse problems (finding a missing dimension).
Singapore covers drawing angles (P4) and perpendicular/parallel lines (P3), but its content statements do not enumerate points, line segments, and rays, or the right/acute/obtuse angle classification that Utah lists.
Singapore names and measures angles in degrees, but does not develop the conceptual definition of an angle as a fraction of a circular arc (the 'reference to a circle' framing), which is central to Utah's standard.
Direct match at the same grade: measuring and drawing angles in degrees (with a protractor).

The skill (finding unknown angles by adding/subtracting) matches Singapore's angle-relationship work, but Singapore sequences that in P5, a year after Utah's Grade 4.

Singapore studies properties of rectangles and squares in P4 and broader triangle/special-quadrilateral properties in P5, but the systematic classification of figures by parallel/perpendicular lines and angle sizes (with justification) is more developed in Utah's standard.

Line symmetry is a P4 topic in Singapore. Utah's Grade 4 geometry strand (area/perimeter, lines and angles, classifying shapes) does not include symmetry.

Singapore works with nets and 2D representations of solids in P4. Utah introduces nets later (Grade 6, 6.G.2), so there is no Grade 4 match.

Singapore's P4 statistics focuses on reading and interpreting given tables, line graphs, and pie charts. It has no content on formulating investigative questions or reasoning about sampling and sample size, which anchor Utah's data-science strand.

Singapore organizes data into tables and reads line graphs and pie charts, which partially overlaps Utah's 'collect and organize.' Utah goes further by having students build their own visualizations from collected data.

Singapore interprets given displays, but does not evaluate how sampling processes or choice of visualization affect interpretation, which is the heart of this Utah standard.

Both interpret data from displays. Utah additionally requires arguing from data, discussing sampling effects, and refining the investigation — elements absent from Singapore's content.

Utah strand	Total Utah standards
#OA standards	6
#NBT standards	7
#NF standards	8
#MG standards	6
#D standards	4
Total	31

Strong	Partial	Weak	Different Singapore grade-level
1	2	3	0
4	3	0	0
5	2	1	0
2	3	1	0
0	2	2	0
12	12	7	0

Utah only	Different Utah grade level	Singapore only
0	0	0
0	0	1
0	0	1
0	1	1
0	0	0
0	1	3

Domain	Topic
Algebraic Thinking	Prime & composite numbers
Algebraic Thinking	Properties of operations
Algebraic Thinking	Generate and describe patterns
Number & Operations	Place value and decimals
Number & Operations	
Number & Operations	
Number & Operations	
Number & Operations	
Number & Operations	Whole number multiplication and division
Number & Operations	

Number & Operations	Operations with decimals
Number & Operations	
Number & Operations	
Number & Operations	Operations with fractions
Number & Operations	
Number & Operations	
Number & Operations	

Number & Operations	
Number & Operations	Percentages
Number & Operations	Rate
Geometry & Measurement	
Geometry & Measurement	Three-dimensional figures and volume
Geometry & Measurement	
Geometry & Measurement	Coordinate plane
Geometry & Measurement	Lines & Angles

Geometry & Measurement	Two-Dimensional Figures
Geometry & Measurement	
Geometry & Measurement	Unit Conversions
Data Science	Data investigations

of Utah Grade 5 Standards:

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Utah
5.OA.1 Use structures, patterns, and relationships to determine whether a given whole number between 1 and 100 is prime or composite. (MP 7)
5.OA.2 Add context to make sense of numerical expressions involving multiple operations with parentheses, brackets, or braces. Write and/or evaluate numerical expressions. (SMP 2)
5.OA.3 Generate two numerical patterns using two given rules. Describe and represent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns and graph the ordered pairs on a coordinate plane. (MP 7)
5.NBT.1 Describe the structure of place value by explaining that the value of one place represents ten times as much as the place to its right and 1/10 of the place to its left. Represent those patterns with a statement of multiplicative comparison. (MP 7)
5.NBT.2 Represent powers of 10 with whole-number exponents. Make and test conjectures about a decimal's placement when multiplying by powers of 10. (MP 7, 8)
5.NBT.3 Describe and represent decimals to the thousandths place using models, base-ten numerals, number names, and expanded forms. (MP 7)
5.NBT.4 Compare two decimal numbers and represent the relationship between the two numbers using comparison symbols $<$, $=$, and $>$. (MP 7)
5.NBT.5 Apply knowledge of place value structure to round decimal numbers to the nearest whole, tenth, or hundredth in and out of context. Determine and justify situations where rounding is appropriate. (MP 2, 3)
5.NBT.6 Use efficient numerical strategies based on properties of multiplication and/or place value to multiply a whole number of up to four digits by a one digit whole number and to multiply two two-digit numbers flexibly, accurately, and efficiently in real-world contexts and equations. Determine if products are reasonable. (MP 2, 6)
5.NBT.7 Use efficient numerical strategies based on properties of multiplication and/or place value to divide up to a four digit number by a one digit number. Communicate the meaning of the remainder in real world contexts. (MP 2, 3)

5.NBT.8 Build and use models to find sums and differences of decimals to hundredths in real-world contexts and equations. Use the models to represent and describe the structure of adding tenths with tenths and hundredths with hundredths. (MP 2, 4, 7)

5.NBT.9 Build and use models to find products of decimals to hundredths in real-world contexts and equations. (MP 2, 4)

5.NBT.10 Build and use models to find quotients of decimals limited to a whole number dividend with a decimal divisor of tenths between 0 and 1, or a decimal dividend with a single-digit whole number divisor in real-world contexts and equations. (MP 2, 4)

5.NF.1 Add and subtract fractions with unlike denominators with precision. Solve problems involving addition and subtraction with unlike denominators in real world contexts and equations. Determine if the solution is reasonable. (MP 2, 6)

5.NF.2 Interpret a fraction as division (a/b is the same as $a \div b$). Solve problems involving division in real world contexts using visual models and/or equations. (MP 2, 4)

5.NF.3 Build and use models, including area models, to multiply fractions, whole numbers, and mixed numbers. Connect the properties of multiplication to multiplying fractions. Solve problems involving multiplication of fractions and mixed numbers using real world contexts and equations (fraction by a fraction, fraction by a mixed number, mixed number by mixed number). (MP 2, 4)

5.NF.4 Interpret multiplication as scaling. Construct, justify, and communicate clear and reasonable arguments about the size of the resulting product when multiplying a given number by a fraction greater than one, a fraction less than one, a fraction equal to one. Make and test conjectures about the size of the product based on the size of the factors without computing. (MP 3, 8)

5.NF.5 Build and use models that extend understanding of division to divide unit fractions by whole numbers and whole numbers by unit fractions. Solve problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions using real world contexts and equations. Make conjectures about the relationship between multiplication and division when operating with fractions and evaluate the results. (MP 2, 4, 8)

— (No corresponding Utah standard at this grade)

— (No corresponding Utah standard at this grade)

5.MG.1 Recognize volume as an attribute of solid figures. Build and use models to understand the concept of volume. Demonstrate that unit cubes can be packed into rectangular prisms. Determine volume by counting unit cubes and expressing the volume in cubic units. (MP 4)

5.MG.2 Build and use models to make sense of and apply the formulas for finding the volume of right rectangular prisms. Add or remove context to solve real-world problems involving the volume of a right rectangular prisms with whole-number side lengths. (MP 2, 4)

— (No corresponding Utah standard at this grade)

5.MG.3 Build and use a model of the coordinate plane to represent real-world problems. Understand the numbers in the coordinate pair indicate distance from the origin in the direction of the horizontal and vertical axes. Graph points in the first quadrant of the coordinate plane Interpret coordinate values based on a given context. (MP 2, 4)

— (No corresponding Utah standard at this grade)

5.MG.4 Describe and represent structure, patterns, and relationships when classifying quadrilaterals in a hierarchy based on attributes. (MP 7)
— (No corresponding Utah standard at this grade)
— (No corresponding Utah standard at this grade)
5.D.1 Determine a topic question and ask investigative questions that will lead to collecting, analyzing, and interpreting data with up to four variables. Ask questions to identify potential sources of bias in data collection, representation, and interpretation. (MP 1)
5.D.2 Select and use tools strategically, to collect and organize data. Build data visualizations. Ask questions to consider a given data set with up to four variables. Make conjectures about potential sampling approaches and how those approaches impact results. (MP 1, 5, 8)
5.D.3 Analyze data sets with up to four variables and multiple data visualizations Evaluate sampling approaches and data visualizations to identify potential data bias. (MP 6, 8)
5.D.4 Interpret data and data visualizations to answer investigative questions while considering the impact of data bias, choice of data visualizations, and sample size. Construct and justify arguments about the data based on visible features of distribution such as center and range. Identify ways to refine investigative questions, data collection, visualization, or analysis. (MP 3)

Strong alignment
Partial alignment
Different Singapore grade level
Weak alignment
Utah only—No Singapore analog

Different Utah grade level

Singapore
P4 · Whole Numbers — Factors and Multiples: 2.1 factors, multiples and their relationship 2.2 determining if a 1-digit number is a factor of a given number within 100
P5 · Whole Numbers — Four Operations: 2.2 order of operations without calculator 2.3 use of brackets without calculator
— (No close match in Singapore Primary 4–6)
P4 · Decimals — Decimals up to 3 decimal places: 1.1 notation, representations and place values (tenths, hundredths, thousandths)
P5 · Whole Numbers — Four Operations: 2.1 multiplying and dividing by 10, 100, 1000 and their multiples without calculator P5 · Decimals — Four Operations: 1.1 multiplying and dividing decimals (up to 3 decimal places) by 10, 100, 1000 and their multiples without calculator
P4 · Decimals — Decimals up to 3 decimal places: 1.1 notation, representations and place values (tenths, hundredths, thousandths)
P4 · Decimals — Decimals up to 3 decimal places: 1.2 comparing and ordering decimals
P4 · Decimals — Decimals up to 3 decimal places: 1.5 rounding decimals to the nearest whole number, 1 decimal place, 2 decimal places
P4 · Whole Numbers — Four Operations: 3.1 multiplication algorithm • up to 4 digits by 1 digit • up to 3 digits by 2 digits
P4 · Whole Numbers — Four Operations: 3.2 division algorithm (up to 4 digits by 1 digit) P3 · Multiplication and Division: 3.3 division with remainder

P4 · Decimals — Addition and Subtraction: 2.1 adding and subtracting decimals (up to 2 decimal places)
P4 · Decimals — Multiplication and Division: 3.1 multiplying and dividing decimals (up to 2 decimal places) by a 1-digit whole number P5 · Decimals — Four Operations: 1.1 multiplying and dividing decimals (up to 3 decimal places) by 10, 100, 1000 and their multiples
P4 · Decimals — Multiplication and Division: 3.1 multiplying and dividing decimals (up to 2 decimal places) by a 1-digit whole number 3.2 dividing a whole number by a whole number with quotient as a decimal
P4 · Fractions — Addition and Subtraction: 3.1 adding and subtracting fractions with denominators of given fractions not exceeding 12 and not more than two different denominators P5 · Fractions — Four Operations: 2.1 adding and subtracting mixed numbers
P5 · Fractions — Fraction and Division: 1.1 dividing a whole number by a whole number with quotient as a fraction
P5 · Fractions — Four Operations: 2.2 multiplying a proper/improper fraction and a whole number without calculator 2.3 multiplying a proper fraction and a proper/improper fractions without calculator 2.4 multiplying two improper fractions 2.5 multiplying a mixed number and a whole number
P5 · Fractions — Four Operations: 2.2–2.5 multiplying fractions, whole numbers and mixed numbers

P6 · Fractions — Four Operations:

1.1 dividing a proper fraction by a whole number without calculator

1.2 dividing a whole number/proper fraction by a proper fraction without calculator

P5 · Number and Algebra — Percentage:

1.1 expressing a part of a whole as a percentage

1.2 use of %

1.3 finding a percentage part of a whole

1.4 finding discount, GST and annual interest

P5 · Number and Algebra — Rate:

1.1 rate as the amount of a quantity per unit of another quantity

1.2 finding rate, total amount or number of units given the other two quantities

P5 · Area and Volume — Volume of Cube and Cuboid:

2.1 building solids with unit cubes

2.2 measuring volume in cubic units, cm^3/m^3

2.4 volume of a cube/cuboid

P5 · Area and Volume — Volume of Cube and Cuboid:

2.4 volume of a cube/cuboid

2.5 finding the volume of liquid in a rectangular tank

P5 · Area and Volume — Area of Triangle:

1.1 concepts of base and height of a triangle

1.2 area of triangle

1.3 finding the area of composite figures made up of rectangles, squares and triangles

— (No close match in Singapore Primary 4–6)

P5 · Geometry — Angles / Triangle:

1.1 angles on a straight line

1.2 angles at a point

1.3 vertically opposite angles

2.2 angle sum of a triangle

P5 · Geometry — Parallelogram, Rhombus and Trapezium: 3.1 properties of parallelogram, rhombus, trapezium P5 · Geometry — Triangle: 2.1 properties of isosceles, equilateral, right-angled triangle
P5 · Area and Volume — Area of Triangle: 1.1 concepts of base and height of a triangle 1.2 area of triangle 1.3 finding the area of composite figures made up of rectangles, squares and triangles
P5 · Decimals — Four Operations: 1.2 converting a measurement from a smaller unit to a larger unit in decimal form, and vice versa (kilometres/metres, metres/centimetres, kilograms/grams, litres/millilitres)
— (No close match in Singapore Primary 4–6)
P4 · Statistics — Tables, Line Graphs and Pie Charts: 1.1 completing a table from given data 1.2 reading and interpreting data from tables/line graphs/pie charts
— (No close match in Singapore Primary 4–6)
P6 · Data Analysis — Average of a Set of Data: 1.1 average as 'total value ÷ number of data' 1.2 relationship between average, total value and number of data

46.2%
30.8%
0.0%
19.2%
3.8%
100.0%

0

Alignment
Partial
Strong
Weak
Partial
Partial
Strong
Strong
Strong
Strong
Strong

Strong
Partial
Partial
Strong
Strong
Strong
Weak

Partial
Different Utah grade level
Different Utah grade level
Strong
Strong
Different Utah grade level
Utah only
Different Utah grade level

Partial
Different Utah grade level
Different Utah grade level
Weak
Partial
Weak
Weak

Commentary
Both Singapore and Utah are working on the concepts of prime and composite numbers. It's just the vocabulary is in the Utah standard. Singapore 2.2 addresses the concept.
Direct match at the same grade: Singapore's order-of-operations and use-of-brackets content corresponds closely to writing and evaluating numerical expressions with grouping symbols.
Singapore has number-pattern work in earlier grades, but the 2021 primary syllabus does not include the coordinate plane or graphing ordered pairs; Singapore introduces coordinate geometry at the secondary level.
Singapore's decimal place-value work (P4) underlies the same structure, but the explicit 'ten times / one-tenth' multiplicative-comparison statement is not part of Singapore's content.
Singapore performs multiplication and division by 10, 100, and 1000 (the practical skill behind decimal-point movement), but does not use exponent notation for powers of 10, which Utah requires.
Strong content match; Singapore develops decimals to thousandths in P4, a year before Utah. Utah additionally lists expanded form and number names.
Strong content match (Singapore in P4). Singapore compares and orders decimals; Utah specifies the comparison symbols.
Strong content match (Singapore in P4): rounding decimals to a whole number, one decimal place, or two decimal places. Utah adds justification of when rounding is appropriate.
Strong content match; Singapore masters this multiplication in P4. Utah revisits it in Grade 5 with an emphasis on efficiency and reasonableness.
Strong content match; Singapore's division algorithm (up to four digits by one digit, P4) and division-with-remainder (P3) cover Utah's Grade 5 expectation a year or more earlier.

Strong content match (Singapore in P4): adding and subtracting decimals to two decimal places (hundredths).

Singapore multiplies decimals by a one-digit whole number (P4) and by powers of ten (P5), but multiplying a decimal by a decimal is less emphasized in the primary syllabus than in Utah's standard.

Singapore divides decimals by a one-digit whole number and produces decimal quotients (P4), overlapping part of this standard. The specific case of dividing by a decimal divisor of tenths is framed only in Utah.

Strong content match: Singapore adds and subtracts fractions with up to two different (unlike) denominators in P4 and extends to mixed numbers in P5, aligning with Utah's unlike-denominator standard.

Direct match at the same grade: Singapore expresses the quotient of two whole numbers as a fraction, which is precisely the fraction-as-division interpretation.

Direct match at the same grade: Singapore multiplies fractions by whole numbers, fractions by fractions, and mixed numbers, covering Utah's range of products.

Singapore computes products of fractions (P5) but does not develop the multiplication-as-scaling interpretation or the reasoning about whether a product grows or shrinks based on the size of the factors, which is the focus of this Utah standard.

The content matches well, but Singapore sequences fraction division in P6, a year after Utah's Grade 5 introduction of dividing unit fractions and whole numbers.

Singapore teaches percentage in P5 (and extends it in P6). Utah does not introduce percent within its Grade 4–6 standards as a distinct strand, so there is no Grade 5 counterpart.

Singapore develops rate in P5. Utah introduces rate and unit rate a year later, in Grade 6 (6.RP), so there is no Grade 5 match.

Direct match at the same grade: Singapore builds solids with unit cubes and measures volume in cubic units, mirroring Utah's conceptual development of volume.

Direct match at the same grade: Singapore finds the volume of cubes/cuboids (right rectangular prisms) and applies it to real contexts such as liquid in a tank.

Singapore finds the area of triangles in P5. Utah introduces triangle area a year later, in Grade 6 (6.G.1), so there is no Grade 5 counterpart.

The 2021 Singapore primary syllabus does not include the coordinate plane or plotting points; coordinate geometry is introduced at the secondary level. This is a Utah-only Grade 5 expectation.

Singapore develops angle relationships (on a line, at a point, vertically opposite) and the angle sum of a triangle in P5. In Utah these geometric-reasoning topics appear in Grade 7, beyond the Grade 4–6 band.

Singapore studies properties of special quadrilaterals (and triangles) in P5, but does not organize them into a classification hierarchy, which is the structural emphasis of Utah's standard.

Singapore finds the area of triangles in P5. Utah introduces triangle area a year later, in Grade 6 (6.G.1), so there is no Grade 5 counterpart.

Singapore performs unit conversions in decimal form in P5. Utah has no dedicated unit-conversion standard at Grade 5; the closest Utah expectation is converting units using a conversion chart in Grade 6 (6.RP.5).

Singapore's primary statistics centers on reading displays (P4) and computing averages (P6); it has no content on formulating multi-variable investigative questions or identifying bias, which define Utah's data-science strand.

Singapore's P4 data-representation work partially overlaps with organizing data and reading displays. Utah goes well beyond this with building visualizations and reasoning about sampling approaches.

Singapore does not address sampling approaches, multi-variable data sets, or data bias in the primary syllabus, so there is little to align with this analysis-focused Utah standard.

Singapore introduces a measure of center (average/mean) in P6, which partly matches Utah's use of center. Utah additionally requires range, attention to bias and sample size, and argumentation, none of which appear in the Singapore content. The Singapore standard also lacks attention to interpreting bias, constructing and justifying arguments present in the Utah standards.

Utah strand	Total Utah standards
#OA standards	3
#NBT standards	10
#NF standards	5
#MG standards	4
#D standards	4
Total	26

Strong	Partial	Weak	Different Singapore grade-level
1	1	1	0
6	4	0	0
3	1	1	0
2	1	0	0
0	1	3	0
12	8	5	0

Utah only	Different Utah grade level	Singapore only
0	0	0
0	0	0
0	2	0
1	4	0
0	0	0
1	6	0

Domain	Topic
Ratio & Proportion	Ratios & unit rate
Ratio & Proportion	
Ratio & Proportion	
Ratio & Proportion	
Ratio & Proportion	Unit conversions
Ratio & Proportion	Percentages
Algebra	Working with numerical expressions
Algebra	
Algebra	Equivalent expressions
Algebra	Solving equations
Algebra	

Algebra	Modeling with equations
Number & Operations	Solve problems by dividing fractions
Number & Operations	Solve problems by dividing decimals
Number & Operations	Multi-digit whole-number arithmetic
Number & Operations	Greatest common factor & least common multiple
Number & Operations	Signed numbers
Number & Operations	
Number & Operations	Absolute value
Geometry & Measurement	

Geometry & Measurement	
Geometry & Measurement	Area, perimeter, & surface area
Geometry & Measurement	
Geometry & Measurement	
Geometry & Measurement	
Geometry & Measurement	Lines & Angles
Data Science	Data investigations
Data Science	
Data Science	

Data Science

of Utah Grade 6 Standards:
26

Utah
6.RP.1 Clearly communicate understanding of ratio relationships by using ratio language. (MP 3)
6.RP.2 Clearly communicate understanding of the concept of a unit rate associated with a ratio and use rate language to represent a unit rate associated with a ratio relationship. (MP 7)
6.RP.3 Build and use models including tables, double number lines, and/or tape diagrams to represent and reason about real-world ratio relationships with whole number quantities. (MP 4)
6.RP.4 Use ratio and rate reasoning as a tool to make sense of and solve problems in context. (MP 5)
6.RP.5 Use ratio reasoning as a tool to convert measurement units when given a unit conversion chart. (MP 5)
(No Utah Grade 6 standard)
6.A.1 Use structure to write and evaluate numerical expressions involving whole numbers exponents. (MP 7)
6.A.2 Describe and represent patterns and structures of expressions to write, read, and evaluate algebraic expressions. (MP 7)
6.A.3 Use properties of operations as tools to generate equivalent expressions. Use properties of operations and understanding of arithmetic to justify why two expressions are equivalent. (MP 3, 5)
6.A.4 Use substitution to reason about whether a given number in a specified set makes an equation or inequality true. Provide justification to support that reasoning. (MP 3)
6.A.5 Describe, represent and solve real-world and mathematical problems using variables within the structure of one-step equations and inequalities. (MP 7)

6.A.6 Create equations to model relationships between two quantities using variables, both in and out of context. (MP 2, 4)

6.NS.1 Extend prior understanding of multiplication and division to divide fractions by fractions. Build and use visual fraction models to make sense of and solve problems dividing fractions by fractions. Add and remove context with problems involving division of fractions by fractions and interpret the quotients. (MP 2, 4)

6.NS.2 Describe and represent structures and patterns to apply an algorithm to divide multi-digit decimals flexibly, accurately, and efficiently. Limit division to a whole number dividend with a decimal divisor or a decimal dividend with a whole number divisor. Determine and justify situations where estimation is appropriate. (MP 3, 6, 7)

6.NS.3 Attend to precision and reasonableness when adding, subtracting, multiplying, and dividing multi-digit whole numbers and decimals flexibly, accurately, and efficiently. (MP 6)

6.NS.4 Find the greatest common factor between two whole numbers 1 to 100 and the least common multiples of two whole numbers 1 to 12 by making use of structures and patterns. Relate greatest common factors to the distributive property. (e.g., re-express $36 + 8$ as $4(9 + 2)$). (MP 7)

6.NS.5 Use positive and negative numbers together to represent quantities in real world contexts, explain the meaning of zero in context. Communicate understanding that positive and negative numbers are used together to describe quantities having opposite directions or values. (MP 2, 3)

6.NS.6 Build and use models to show positive and negative numbers on a number line and coordinate plane. Use models to order positive and negative numbers. (MP 4)

6.NS.7 Build and use models to develop the definition of absolute value. Work with absolute value in and out of context. (MP 2, 4)

6.G.1 Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing and decomposing into rectangles, triangles and/or other shapes. (MP 7)

6.G.2 Build and use nets to represent 3-dimensional figures composed of rectangles and triangles. Use nets as tools to find the surface area of the figure. (MP 4, 5)

6.G.3 Select and use tools appropriately to solve real-world and decontextualized mathematical problems involving surface area and volume of right rectangular prisms with fractional edge lengths. (MP 2, 5)

6.G.4 Construct polygons on the coordinate plane given coordinates for the vertices. Use coordinates to find the length of a side joining points with the same x coordinate or the same y coordinate. Apply these techniques to solve problems with and without real-world context. (MP 2)

— (No corresponding Utah standard at this grade)

— (No corresponding Utah standard at this grade)

6.D.1 Formulate statistical investigative questions that anticipate variability in data and how the data may impact the investigation question. (MP 1)

6.D.2 Select and use tools appropriately and strategically to generate, collect, and organize data. Ask questions about how the data were collected and whether the data are useful to answer the statistical question of interest. (MP 1, 5)

6.D.3 Create precise and reasonable visual representations, including histograms (with or without technology), dot plots, and box plots. Justify which graph or plot best represents the data. Analyze and interpret visual representations and numerical summaries for measures of center (mean and/or median) and measures of variability (mean absolute deviation and/or interquartile range). (MP 3, 6)

6.D.4 Construct, justify, and communicate answers to investigative questions about distributions. Consider the interpretation of the following features of distributions: center (mean and/or median), variability (mean absolute deviation and/or inter quartile range), and overall shape (symmetric or non-symmetric). Describe any striking deviations (outliers). Identify ways to refine investigative questions, data collection, visualization, or analysis. (MP 3)

	Strong alignment
	Partial alignment
Different Singapore grade level	
	Weak alignment
Utah only--No Singapore analog	

Different Utah grade level	
Singapore only	

Singapore
P6 · Ratio: 1.1 notation, representations and interpretation of $a:b$ and $a:b:c$, where a, b and c are whole numbers, excluding ratios involving fractions and decimals
P5 · Number and Algebra — Rate: 1.1 rate as the amount of a quantity per unit of another quantity 1.2 finding rate, total amount or number of units given the other two quantities
P6 · Ratio: 1.2 equivalent ratios 1.3 dividing a quantity in a given ratio 1.6 finding the missing term in a pair of equivalent ratios
P6 · Ratio: 1.3 dividing a quantity in a given ratio 1.5 finding the ratio of two or three given quantities 1.6 finding the missing term in a pair of equivalent ratios 1.7 relationship between fraction and ratio
P5 · Decimals — Four Operations: 1.2 converting a measurement from a smaller unit to a larger unit in decimal form, and vice versa (km/m, m/cm, kg/g, L/mL)
P6 · Number and Algebra — Percentage: 1.1 finding the whole given a part and the percentage 1.2 finding percentage increase/decrease
P5 · Whole Numbers — Four Operations: 2.2 order of operations without calculator 2.3 use of brackets without calculator
P6 · Algebra: 1.1 using a letter to represent an unknown number 1.2 notation, representations and interpretation of simple algebraic expressions 1.4 evaluating simple linear expressions by substitution
P6 · Algebra: 1.3 simplifying simple linear expressions excluding brackets
P6 · Algebra: 1.4 evaluating simple linear expressions by substitution 1.5 simple linear equations involving whole number coefficient only
P6 · Algebra: 1.5 simple linear equations involving whole number coefficient only

P6 · Algebra: 1.1 using a letter to represent an unknown number 1.2 notation, representations and interpretation of simple algebraic expressions
P6 · Fractions — Four Operations: 1.1 dividing a proper fraction by a whole number without calculator 1.2 dividing a whole number/proper fraction by a proper fraction without calculator
P4 · Decimals — Multiplication and Division: 3.1 multiplying and dividing decimals (up to 2 decimal places) by a 1-digit whole number P5 · Decimals — Four Operations: 1.1 multiplying and dividing decimals by 10, 100, 1000 and their multiples
P4 · Whole Numbers — Four Operations / P4 · Decimals — Addition and Subtraction, Multiplication and Division (four operations with multi-digit whole numbers and decimals, mastered across P3–P5)
P4 · Whole Numbers — Factors and Multiples: 2.3 finding the common factors of two given numbers 2.5 finding the common multiples of two given 1-digit numbers
— (No close match in Singapore Primary 4–6)
— (No close match in Singapore Primary 4–6)
— (No close match in Singapore Primary 4–6)
P5 · Area and Volume — Area of Triangle: 1.1 concepts of base and height of a triangle 1.2 area of triangle 1.3 finding the area of composite figures made up of rectangles, squares and triangles

P4 · Geometry — Nets: 4.1 identifying 2D representations of cube, cuboid, cone, cylinder, prism, pyramid 4.3 identifying the nets of 3D solids 4.4 identifying the solid which can be formed by a given net
P5 · Area and Volume — Volume of Cube and Cuboid: 2.4 volume of a cube/cuboid P6 · Area and Volume — Volume of Cube and Cuboid: 2.1–2.4 finding a dimension/edge/height/face given the volume
— (No close match in Singapore Primary 4–6)
P6 · Area and Volume — Area and Circumference of Circle: 1.1 area and circumference of circle 1.2 finding the area and perimeter of semicircle and quarter circle 1.3 finding the area and perimeter of composite figures made up of square, rectangle, triangle, semicircle and quarter circle
P6 · Geometry — Special Quadrilaterals: 1.1 finding unknown angles, without additional construction of lines, in composite geometric figures involving square, rectangle, triangle, parallelogram, rhombus and trapezium
— (No close match in Singapore Primary 4–6)
P4 · Statistics — Tables, Line Graphs and Pie Charts: 1.1 completing a table from given data 1.2 reading and interpreting data from tables/line graphs/pie charts
P6 · Data Analysis — Average of a Set of Data: 1.1 average as 'total value ÷ number of data' 1.2 relationship between average, total value and number of data

P6 · Data Analysis — Average of a Set of Data:
1.1 average as 'total value ÷ number of data'
1.2 relationship between average, total value and number of data

15.4%
34.6%
0.0%
15.4%
15.4%
80.8%

0
2

Alignment
Strong
Strong
Partial
Strong
Strong
Singapore only
Weak
Strong
Partial
Partial
Partial

Partial
Strong
Partial
Strong
Partial
Utah only
Utah only
Utah only
Strong

Partial
Partial
Utah only
Singapore only
Singapore only
Weak
Partial
Weak

Weak

Commentary
Direct match at the same grade: Singapore introduces ratio notation and interpretation in P6, corresponding to Utah's use of ratio language.
Strong content match; Singapore develops rate ('amount per unit of another quantity') in P5, which is the unit-rate concept Utah names in Grade 6.
Singapore reasons about ratio relationships (equivalent ratios, dividing in a ratio) in P6, and tape/bar models are standard in its pedagogy, but the content statements do not name the specific models (tables, double number lines, tape diagrams) that Utah lists.
Direct match at the same grade: Singapore uses ratio reasoning to solve a range of problems, including dividing quantities in a ratio and finding missing terms.
Strong content match; Singapore performs measurement-unit conversions in P5, a year before Utah, using place-value/decimal reasoning rather than an explicit conversion chart.
Singapore extends percentage in P6 (finding the whole, percentage increase/decrease). Percent is not a named topic within Utah's Grade 4–6 standards, so there is no direct counterpart.
Singapore develops order of operations and brackets, but the 2021 primary syllabus does not include exponents; expressions with whole-number exponents are a Utah-specific Grade 6 target.
Direct match at the same grade: Singapore writes, reads (interprets), and evaluates simple algebraic expressions using a letter for an unknown.
Singapore simplifies simple linear expressions (excluding brackets), which overlaps with generating equivalent expressions, but does not require justifying equivalence via properties of operations or the broader manipulation Utah expects.
Singapore evaluates expressions by substitution and solves simple linear equations, but does not treat inequalities or the 'test whether a value satisfies' framing that Utah uses.
Singapore solves simple linear equations (whole-number coefficients) in P6, matching the equation half of this standard, but does not include inequalities.

Singapore introduces letters as unknowns and simple expressions, but does not explicitly develop modeling relationships between two quantities with equations, which Utah emphasizes.

Direct match at the same grade: Singapore divides a whole number or proper fraction by a proper fraction in P6, which is the core of dividing fractions by fractions.

Singapore divides decimals by a one-digit whole number (P4) and by powers of ten (P5), earlier than Utah, but does not present a general multi-digit decimal-division algorithm with the divisor cases Utah specifies.

Strong content match, though earlier in Singapore: Singapore completes the four operations on multi-digit whole numbers and decimals across P3–P5, while Utah consolidates fluency in Grade 6.

Singapore finds common factors and common multiples in P4, but does not single out the greatest common factor or least common multiple, nor link them to the distributive property as Utah does.

Negative numbers and integers are not part of the 2021 Singapore primary syllabus; they are introduced at the secondary level. This is a Utah-only Grade 6 expectation.

Singapore's primary syllabus covers neither negative numbers nor the coordinate plane, so there is no counterpart to this Utah standard.

Absolute value depends on negative numbers, which the Singapore primary syllabus does not include; this is a Utah-only Grade 6 topic.

Strong content match; Singapore finds triangle area and the area of composite figures (by composing/decomposing) in P5, a year before Utah's Grade 6 standard.

Singapore works with nets and 2D representations of solids in P4, but uses them for identification rather than for computing surface area, which is the purpose Utah assigns to nets in Grade 6.

Singapore computes the volume of cubes and cuboids (P5) and reasons backward from a given volume (P6), but does not address surface area or fractional edge lengths as Utah does.

The 2021 Singapore primary syllabus does not include the coordinate plane; plotting polygons by coordinates is a Utah-only Grade 6 expectation.

Singapore studies the area and circumference of circles in P6. Utah introduces circle area and circumference in Grade 7, so there is no Grade 6 counterpart.

Singapore finds unknown angles in composite figures of special quadrilaterals in P6. Utah develops this kind of angle reasoning in Grade 7, beyond the Grade 4–6 band.

Singapore's P6 statistics is limited to computing averages; it does not address formulating statistical investigative questions or anticipating variability.

Singapore organizes and reads data displays (P4), partially matching the data-handling here, but does not ask students to evaluate how data were collected or whether they fit the question.

Singapore introduces the mean (average) in P6, but has no histograms, dot plots, box plots, median, mean absolute deviation, or interquartile range, all of which Utah requires.

Beyond the mean, Singapore's primary syllabus does not address distribution shape, variability, outliers, or the investigative-question cycle that Utah builds its data-science standard around.

Utah strand	Total Utah standards
#RP standards	5
#A standards	6
#NS standards	7
#G standards	4
#D standards	4
Total	26

Strong		Partial		Weak		Different Singapore grade-level	
4		1		0		0	
1		4		1		0	
2		2		0		0	
1		2		0		0	
0		1		3		0	
4		9		4		0	

Utah only	Different Utah grade level	Singapore only
0	0	1
0	0	0
3	0	0
1	0	2
0	0	0
4	0	2

Domain	Topic
Ratio & Proportion	Percents & Financial Applications
Ratio & Proportion	
Ratio & Proportion	
Ratio & Proportion	Ratios, Rates, & Proportional Relationships
Ratio & Proportion	
Ratio & Proportion	
Ratio & Proportion	
Algebra	
Algebra	Expressions, Equations, & Inequalities
Algebra	

Algebra	
Functions	Linear Functions & Number Sequences
Functions	
Functions	
Functions	
Number & Operations	The Number System & Rational Numbers
Number & Operations	The Number System & Rational Numbers
Number & Operations	The Number System & Rational Numbers
Number & Operations	The Number System & Rational Numbers
Number & Operations	The Number System & Rational Numbers
Number & Operations	Exponents and Roots
Number & Operations	
Geometry & Measurement	Scale Drawings, Constructions, & Similarity

Geometry & Measurement	
Geometry & Measurement	Circles, Area, Surface Area, Volume & Angles
Geometry & Measurement	
Geometry & Measurement	
Geometry & Measurement	Parallel Lines, Transversals, & Angle Relationships
Geometry & Measurement	
Geometry & Measurement	Congruence & Similarity
Geometry & Measurement	
Geometry & Measurement	Rotational Symmetry
Data Science	Statistics & Sampling
Data Science	
Data Science	

Data Science	Probability
Data Science	
Data Science	
Data Science	
Data Science	

of Utah Grade 7 Standards:
28

Utah
7.RP.2 Understand percent of a quantity as a rate per 100. Describe and represent structures and patterns that connect percent to ratio. (MP 7)
7.RP.3 Build and use models including tables, graphs, double number lines, or tape diagrams to find a percent of a quantity as a rate per 100. Solve problems involving finding the whole, the part, or the percent. (MP 4)
7.RP.6 Use proportional relationships as a tool to solve multi-step and percent problems such as simple interest, tax, markups and markdowns, gratuities and commissions, fees, and percent increase and decrease. (MP 5)
7.RP.1 Calculate unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities. Apply unit rate as a tool to make and evaluate conjectures about proportional relationships. (MP 8)
7.RP.4 Recognize structures and patterns when analyzing real world contexts to determine whether two quantities have a proportional relationship. Use tables, graphs, equations, diagrams and verbal descriptions to justify whether a relationship is proportional. (MP 3, 7)
7.RP.5 Build and use models (tables, graphs, equations, diagrams and verbal descriptions) to represent proportional relationships and identify and interpret the constant of proportionality. (MP 4)
7.RP.7 Interpret the meaning of a point (x,y) on the graph of a proportional relationship in a given context. Connect and interpret the relationship between the points $(0, 0)$ and $(1, r)$ where r is the unit rate. (MP 4, 7)
7.A.4 Build and use models including tables, graphs, and equations to represent and understand the relationship between independent and dependent variables. (MP 4)
7.A.1 Apply properties of operations as tools to add, subtract, factor and expand linear expressions with rational coefficients in different forms. (MP 5)
7.A.2 Use algebraic tools to solve equations and inequalities representing real-world problems of the form $px+q=r$ and $p(x+q)=r$ using positive and negative rational numbers. Attend to the reasonableness of the solutions. (MP 5, 6)

7.A.3 Given a context, construct equations and inequalities to model real-world problems of the form $px+q=r$ and $p(x+q)=r$ using positive and negative rational numbers. (MP 4)

(No Utah Grade 7 standard)

(No Utah Grade 7 standard)

(No Utah Grade 7 standard)

(No Utah Grade 7 standard)

7.NS.1 Describe and represent structures, patterns and relationships to define rational numbers and make connections between fraction, decimal and percent representations. of a rational number. Flexibly use the various representations of rational numbers while attending to precision. (MP 6, 7)

7.NS.2 Build and use models including a horizontal or vertical number line diagram to extend previous understanding of addition and subtraction to add and subtract rational numbers in and out of context including signed decimals and fractions. (MP 2, 4)

7.NS.3 Extend previous understanding of multiplication and division to multiply and divide rational numbers in and out of context. (MP 2)

7.NS.4 Flexibly, accurately, and efficiently add, subtract, multiply and divide rational numbers including signed decimals and fractions in and out of context. Attend to precision and reasonableness of solutions. (MP 5, 6)

(No Utah Grade 7 standard)

(No Utah Grade 7 standard)

(No Utah Grade 7 standard)

7.G.1 Select and use tools appropriately and strategically (e.g., a compass, straightedge, dynamic geometry software) to draw and accurately describe scaled geometrical figures. Utilize the underlying structure of scale drawings to understand scale factor and solve real world and mathematical problems. (MP 5, 7)

7.G.2 Select and use tools appropriately and strategically to create triangles from given conditions to determine whether a unique triangle, more than one triangle, or no triangle can be formed. (MP 5)

7.G.3 Flexibly, accurately and efficiently solve real-world and mathematical problems involving perimeter and area of circles, triangles, quadrilaterals and polygons as well as surface area of right prisms. (MP 2, 6)

7.G.4 Describe and use the relationship between the area of a base of a right-prism and its volume to solve real world and mathematical problems. (MP 7)

7.G.5 Describe and represent structures, patterns, and relationships related to supplementary, complementary, vertical, and adjacent angles to solve for unknown angle measures in a figure. (MP 7)

(No Utah Grade 7 standard)

(No Utah Grade 7 standard)

(No Utah Grade 7 standard)

(No Utah Grade 7 standard)

(No Utah Grade 7 standard)

7.D.1 Formulate statistical investigative questions that anticipate variability in data collected from a random sample of a population. (MP 1)

7.D.2 Generate, collect, and organize randomly sampled data that is representative of the population using tools appropriately. Explain why random sampling is more likely to produce representative samples and support valid inferences using clear and reasonable arguments. (MP 3, 5)

7.D.3 Create precise and reasonable visual representations, including histograms (with technology), dot plots, and box plots. Analyze and interpret visual representations and numerical summaries for measures of center (mean and/or median) and measures of variability (mean absolute deviation and/or inter-quartile range). (MP 6)

7.D.4 Construct, justify, and communicate answers to investigative questions about a population and comparisons about two different populations. Compare features such as center (mean and median), variability (mean absolute deviation and inter-quartile range) and overall shape (symmetric or nonsymmetric). (MP 3)
7.D.5 Communicate clear understanding that the probability of a chance event is the likelihood of an event occurring and is expressed as a number between 0 and 1. (MP 3)
7.D.6 Estimate the probability of a chance event by observing its long-run relative frequency. Given the probability, predict and evaluate the reasonableness of approximate relative frequencies. (MP 8)
7.D.7 Build and use probability models such as organized lists, tables, tree diagrams, and simulations to find or estimate probabilities of simple and compound events. (MP 4)
7.D.8 Build a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies. If the agreement is not good, explain possible sources for discrepancy. (e.g., find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down...) (MP 4)

Utah Standards

	Strong alignment
	Partial alignment
Different Singapore grade level	
	Weak alignment
Utah only—No Singapore analog	
Different Utah grade level	
Singapore only	

Singapore
Sec 1 N3.1 expressing percentage as a fraction or decimal Sec 1 N3.3 expressing one quantity as a percentage of another
Sec 1 N3.2 finding the whole given a percentage part Sec 1 N3.3 expressing one quantity as a percentage of another Sec 1 N3.6 finding one quantity given the percentage and the other quantity
Sec 1 N3.7 increasing/decreasing a quantity by a given percentage Sec 1 N3.8 finding percentage increase/decrease
Sec 1 N2.3 ratios involving fractions and decimals Sec 2 N4.1 rates and average rates (including the concepts of speed and average speed)
Sec 2 N2.6 direct and inverse proportion
Sec 2 N2.6 direct and inverse proportion
Sec 2 N6.2 graph of a set of ordered pairs as a representation of a relationship between two variables Sec 2 N6.5 the gradient of a linear graph as the ratio of the vertical change to the horizontal change (positive and negative gradients)
Sec 2 N6.2 graph of a set of ordered pairs as a representation of a relationship between two variables Sec 2 N6.3 linear functions ($y = ax + b$) Sec 2 N6.4 graphs of linear functions
Sec 2 N5.6 addition and subtraction of linear expressions Sec 2 N5.7 simplification of linear expressions, e.g. $-2(3x - 5) + 4x$; $(2x)/3 - (3(x - 5))/2$
Sec 2 N7.1 solving linear equations in one variable Sec 2 N7.2 formulating a linear equation in one variable to solve problems

Sec 2 N7.2 formulating a linear equation in one variable to solve problems
Sec 1 N5.4 recognising number sequences (including evaluating simple nth term like $n + 3$ and $2n + 1$)
Sec 2 N6.3 linear functions ($y = ax + b$)
Sec 2 N6.4 graphs of linear functions
Sec 2 N6.5 the gradient of a linear graph as the ratio of the vertical change to the horizontal change (positive and negative gradients)
Sec 1 N3.1 expressing percentage as a fraction or decimal Sec 1 N1.3 four operations on fractions and decimals (including negative fractions and decimals)
Sec 1 N1.2 integers and their four operations Sec 1 N1.3 four operations on fractions and decimals (including negative fractions and decimals) Sec 1 N1.5 representation and ordering of numbers on the number line
Sec 1 N1.2 integers and their four operations Sec 1 N1.3 four operations on fractions and decimals (including negative fractions and decimals)
Sec 1 N1.2 integers and their four operations Sec 1 N1.3 four operations on fractions and decimals (including negative fractions and decimals)
Sec 1 N1.1 negative numbers and primes (exclude prime factorisation)
Sec 1 N1.4 calculations with calculator, including squares, cubes, square roots and cube roots
Sec 2 G3.1 use of Pythagoras' theorem
Sec 2 G1.6 construction of simple geometrical figures from given data (including perpendicular bisectors and angle bisectors) using compasses, ruler, set squares and protractor where appropriate Sec 2 G2.5 properties of similar triangles and quadrilaterals: corresponding angles are equal; corresponding sides are proportional

Sec 2 G1.6 construction of simple geometrical figures from given data ... using compasses, ruler, set squares and protractor where appropriate

Sec 1 G4.1 area of triangle as $\frac{1}{2} \times \text{base} \times \text{height}$

Sec 1 G4.2 area and circumference of circle

Sec 1 G4.3 area of parallelogram and trapezium

Sec 1 G4.4 problems involving perimeter and area of composite plane figures

Sec 2 G4.8 volume and surface area of prism and cylinder

Sec 1 G4.5 volume and surface area of cube and cuboid

Sec 2 G4.8 volume and surface area of prism and cylinder

Sec 1 G1.2 vertically opposite angles, angles on a straight line and angles at a point

Sec 1 G1.3 angles formed by two parallel lines and a transversal: corresponding angles, alternate angles, interior angles

Sec 2 G3.2 determining whether a triangle is right-angled given the lengths of three sides

Sec 2 G2.4 congruent and similar figures

Sec 2 G2.5 properties of similar triangles and quadrilaterals: corresponding angles are equal; corresponding sides are proportional

Sec 1 G2.1 line and rotational symmetry of plane figures

Sec 1 S1.1 simple concepts in collecting, classifying and tabulating data

Sec 1 S1.1 simple concepts in collecting, classifying and tabulating data

Sec 2 S1.4 analysis and interpretation of: dot diagrams; histograms with equal class intervals

Sec 2 S1.6 purposes and uses of mean, mode and median

Sec 2 S1.7 calculation of the mean, mode and median for a set of ungrouped data

Sec 2 S1.6 purposes and uses of mean, mode and median Sec 2 S1.7 calculation of the mean, mode and median for a set of ungrouped data
Sec 2 S2.1 probability as a measure of chance
Sec 2 S2.1 probability as a measure of chance Sec 2 S2.2 probability of single events (including listing all the possible outcomes in a simple chance situation to calculate the probability)
Sec 2 S2.2 probability of single events (including listing all the possible outcomes in a simple chance situation to calculate the probability)
Sec 2 S2.2 probability of single events (including listing all the possible outcomes in a simple chance situation to calculate the probability)

32.1%
57.1%
0.0%
10.7%
0.0%
100.0%

12
0

Alignment
Partial
Strong
Partial
Partial
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Partial
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Strong
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Partial

Partial
Different Utah grade level
Different Utah grade level
Different Utah grade level
Different Utah grade level
Partial
Strong
Strong
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Commentary
Percentage as a fraction/decimal and expressing one quantity as a percentage of another (N3.1, N3.3) connect percent to ratio, though Singapore does not frame percent explicitly as a "rate per 100."
Finding the whole, the part, or the percent matches N3.2, N3.3 and N3.6 directly; only the specific model representations (double number lines, tape diagrams) are not named in Singapore.
Percentage increase/decrease (N3.7, N3.8) aligns; the specific financial applications (interest, tax, commission, etc.) are applications of these skills rather than separately listed Singapore outcomes.
Ratios involving fractions (N2.3) and the concept of rate (N4.1) overlap with unit-rate work, but Singapore does not isolate "unit rate" or use it to make/evaluate conjectures about proportionality.
Direct proportion (N2.6) is the underlying concept, but determining and justifying proportionality across multiple representations is a more developed expectation in Utah.
Direct proportion (N2.6) embodies a constant of proportionality, but Singapore does not explicitly name the "constant of proportionality" or require representing it across the full range of models.
Reading points on a graph (N6.2) and the gradient (N6.5, equivalent to the unit rate r) relate closely, but interpreting $(0,0)$ and $(1,r)$ on a proportional graph is a Utah-specific emphasis.
Representing a relationship between two variables with graphs and equations matches Sec 2 N6.2–N6.4 closely; the independent/dependent-variable framing is the same idea expressed in Singapore as ordered pairs and linear functions.
Adding, subtracting, expanding and simplifying linear expressions with rational coefficients align well with Sec 2 N5.6–N5.7. Factorising linear expressions is not a stated outcome in the G1 Sec 1–2 sequence.
Solving linear equations of these forms maps strongly to Sec 2 N7.1–N7.2. Solving linear inequalities is not part of the Singapore Sec 1–2 (G1) syllabus.

Formulating linear equations to model problems matches N7.2 directly. Constructing inequalities is not addressed in Singapore Sec 1–2.
Number sequences has no corresponding Utah Grade 7 standard.
Linear functions are not Utah Grade 7 content; in Utah they are addressed in Grade 8.
Graphs of linear functions are not Utah Grade 7 content; in Utah they are addressed in Grade 8.
Gradient of a graph is not Utah Grade 7 content; in Utah they are addressed in Grade 8.
Interconverting fraction/decimal/percent representations aligns with N3.1 (and fraction/decimal work in N1.3). However, formally defining the set of rational numbers is not a stated Singapore Sec 1–2 outcome.
Adding and subtracting signed integers, fractions and decimals, supported by the number line, matches Sec 1 N1.2, N1.3 and N1.5 directly.
Multiplying and dividing signed rationals is squarely covered by the four-operations outcomes N1.2 and N1.3.
Fluent four-operation computation with signed rationals matches N1.2 and N1.3 directly.
Prime numbers are not taught in Utah Grade 7 and are taught in Grade 8 instead.
Squares, cubes, square roots, and cube roots are not Utah Grade 7 content; in Utah they are addressed in Grade 8.
The Pythagorean Theorem is not in Utah Grade 7; in Utah it is Grade 8 content (8.G.1–8.G.5).
Constructing figures with compass/ruler matches G1.6, and scale factor relates to the proportional sides in similarity (G2.5). Scale drawings as such are not a distinct Singapore outcome.

Constructing triangles from given data matches G1.6, but analysing whether the conditions yield a unique, multiple, or no triangle is a Utah-specific expectation.
Perimeter and area of circles, triangles and quadrilaterals match Sec 1 G4.1–G4.4, and surface area of right prisms matches Sec 2 G4.8.
Volume of a prism as base area $\times$ height is directly covered by G4.8 (and the cube/cuboid case in G4.5).
Vertically opposite (vertical), angles on a straight line (supplementary) and angles at a point/adjacent angles all appear in G1.2; only “complementary” is not separately named.
Parallel-line/transversal angles are not in Utah Grade 7; in Utah they are Grade 8 content.
Parallel-line/transversal angles, congruence/similarity and Pythagoras' theorem are not in Utah Grade 7; in Utah they are Grade 8 content (8.G.1–8.G.5).
Congruence and similarity are not in Utah Grade 7; in Utah they are Grade 8 content.
These topics are not in Utah Grade 7; in Utah they are Grade 8 content (8.G.1–8.G.5).
Symmetry of plane figures has no corresponding Utah Grade 7 standard and is taught in an earlier grade.
Data collection (S1.1) is present, but formulating investigative questions, random sampling and anticipating variability are not part of the Singapore Sec 1–2 syllabus.
Collecting and organising data matches S1.1, but the rationale for random sampling and statistical inference is a Utah-specific focus not in Singapore Sec 1–2.
Dot plots/diagrams, histograms and measures of center (mean, median) match Sec 2 S1.4, S1.6 and S1.7. Box plots and measures of variability (MAD, IQR) are not in the Singapore Sec 1–2 syllabus.

Measures of center are available (S1.6, S1.7), but comparing two populations and reasoning about variability and shape are not addressed in Singapore Sec 1–2.

Probability as a measure of chance (S2.1) is the same idea as probability being the likelihood of an event, expressed between 0 and 1.

Probability of single events (S2.1–S2.2) is covered, but estimating probability from long-run/experimental relative frequency is a Utah-specific emphasis.

Listing outcomes for single events matches S2.2, but compound events, tree diagrams and simulations are beyond the Singapore Sec 1–2 syllabus.

Single-event (theoretical) probability is in S2.2, but comparing a model's probabilities to observed/experimental frequencies and explaining discrepancies is not in Singapore Sec 1–2.

Utah strand	Total Utah standards
#RP standards	7
#A standards	4
#F standards	0
#NS standards	4
#G standards	5
#D standards	8
Total	28

Strong	Partial	Weak	Different Singapore grade-level
1	6	0	0
1	3	0	0
0	0	0	0
3	1	0	0
3	2	0	0
1	4	3	0
9	16	3	0

Utah only	Different Utah grade level	Singapore only
0	0	0
0	0	0
0	4	0
0	3	0
0	5	0
0	0	0
0	12	0

Domain	Topic
Ratio & Proportion	Ratio, Proportion, & Rate
Ratio & Proportion	
Ratio & Proportion	
Ratio & Proportion	Percentages
Algebra	Solving Equations and Inequalities
Algebra	Solving Systems of Equations
Algebra	Exponential Expressions
Algebra	
Algebra	
Algebra	
Algebra	

Algebra	Linear Functions and Slope
Algebra	
Functions	
Functions	
Functions	Function Basics
Functions	
Functions	Modeling with Functions
Functions	Features of Functions
Number & Operations	Irrational Numbers
Number & Operations	

Number & Operations	
Number & Operations	
Number & Operations	Operations with Signed Rationals
Number & Operations	
Geometry & Measurement	Rigid Transformations
Geometry & Measurement	
Geometry & Measurement	
Geometry & Measurement	Triangles & Angle Relationships
Geometry & Measurement	
Geometry & Measurement	Measurement
Geometry & Measurement	

Geometry & Measurement	Geometric Constructions
Geometry & Measurement	Measures of Center and Probability
Geometry & Measurement	
Geometry & Measurement	
Geometry & Measurement	
Data Science	Bivariate Data
Data Science	
Data Science	
Data Science	
Data Science	
Data Science	
Data Science	

of Utah Grade 8 Standards:
31

Utah
(No Utah Grade 8 standard)
(No Utah Grade 8 standard)
(No Utah Grade 8 standard)
(No Utah Grade 8 standard)
8.A.8 Use structures, patterns and properties of equivalence to solve symbolic and real-world single-variable equations and inequalities with rational number coefficients and justify algebraically. Solve absolute value equations in the form $ px +q=c$ or $ px+q =c$. (MP 7)
8.A.9 Build and use graphic models to analyze and solve systems of two linear equations in two variables and interpret their solutions. Identify systems that have zero, one, and infinite solutions with or without context. (MP 2, 4)
8.A.1 Use structure and patterns to develop and apply the properties of integer exponents to generate equivalent expressions. (MP 7)
8.A.2 Use structure and patterns of operations to simplify and evaluate algebraic expressions, including those involving rational coefficients, exponents, and polynomial terms. (MP 7)
8.A.3 Use algebraic tools strategically to represent solutions to equations in the form $x^2 = p$ and $x^3 = p$. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. (MP 5)
8.A.4 Represent the structure and patterns of numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and express how many times as much one is than the other. (MP 7)
8.A.5 Apply structures, properties and patterns of exponents to perform all four operations with scientific notation. Interpret scientific notation in terms of a context. (MP 2, 7)

8.A.6 Represent patterns by graphing proportional relationships and interpret the unit rate as the slope of the graph. Use the structure of similar triangles to explain why the slope is the same between any two distinct points on a non-vertical line in the coordinate plane. (MP 7)

8.A.7 Represent and compare linear relationships using graphs, tables, and equations with or without context. Interpret slope and intercepts in context. (MP 2)

8.F.2 Given a representation (verbal description, table, two coordinate pairs, or an equation of $y=mx+b$), determine and interpret the rate of change and the initial value in and out of context. (MP 2, 4)

8.F.5 Use multiple representations (tables, graphs, equations, diagrams and verbal descriptions) to compare the properties of linear and nonlinear functions with and without a context. Justify whether a function is linear or non-linear. (MP 3)

8.F.1 Construct and communicate clear arguments as to whether a relation is a function. (MP 3)

(No Utah Grade 8 standard)

8.F.3 Construct a function to model a linear relationship between two quantities when given a verbal description, a table, and a graph. (MP 4)

8.F.4 Given a graph of two quantities (linear and non-linear), describe and represent features of the relationship, including intervals where the function is increasing or decreasing, the location of its maximum and minimum values. Build graphic models that satisfy given qualitative features. (MP 4, 7)

8.NS.1 Describe and represent structures and patterns comparing the set of irrational numbers to the set of rational numbers, in order to determine properties of irrational numbers. (MP 7)

8.NS.2 Find rational approximations of irrational numbers, attending to precision and reasonableness. Use a number line diagram as a model to compare values of irrational numbers. (MP 4, 6)

8.NS.3 Estimate the value of expressions containing irrational numbers, with and without a context. (MP 2)

8.NS.4 Justify why sums and products of rational numbers are rational, that the sum of a rational number and an irrational number is irrational, and that the product of a nonzero rational number and an irrational number is irrational. Build and use models to connect to physical situations. (MP 3, 4)

(No Utah Grade 8 standard)

(No Utah Grade 8 standard)

8.G.1 Use rigid transformations to establish a definition of congruent figures. Justify that two shapes are congruent through the use of rigid transformations. Make and evaluate conjectures about attributes of, rotations, reflections, and translations with and without coordinates. (MP 3, 8)

8.G.2 Use transformations (dilation, translation, reflection and rotation) to establish a definition of similar figures. Justify that two shapes are similar through the use of transformations. Make and examine conjectures about attributes of dilations, with and without coordinates. (MP 3, 8)

8.G.3 Ask questions to determine the difference between congruence and similarity in terms of transformations. Clearly communicate the distinction between congruent and similar figures. (MP 1, 3)

8.G.4 Create and communicate informal arguments that establish angle relationships for parallel lines cut by a transversal and angle relationships for triangles, including the angle sum and exterior angle. (MP 3)

8.G.5 Use the Pythagorean theorem when solving problems with right triangles and finding distance between two coordinate points. Use geometric structures and numerical patterns to understand and explain proofs of the Pythagorean Theorem. (MP 7)

8.G.6 Solve real-world and mathematical problems with or without a context involving right triangles, distance, and volume of cones, cylinders, and spheres. (MP 2)

(No Utah Grade 8 standard)

(No Utah Grade 8 standard)
(No Utah Grade 8 standard)
(No Utah Grade 8 standard)
(No Utah Grade 8 standard)
(No Utah Grade 8 standard)
8.D.1 Ask questions about bivariate data sets (quantitative and categorical) to investigate patterns of associations between two quantities. (MP 1)
8.D.2 Select and use tools appropriately and strategically to identify existing data sets or generate, collect, and organize data to investigate associations between two quantities. (MP 5)
8.D.3 Explore, describe and compare variability in bivariate data for quantitative variables by creating scatter plots. For scatter plots that suggest a linear association, represent the relationship with a linear equation, and informally assess the line of fit by judging the closeness of the data points to the line. (MP 7)
8.D.4 Describe, represent and explain patterns of association such as clustering, positive or negative association, linear or nonlinear association and effects of outliers. (MP 7)
8.D.5 Answer investigative questions by interpreting quantitative bivariate data. Construct, justify, and communicate clear and reasonable arguments regarding the data. Use the equation of a linear model to solve problems in the context of bivariate measurement data, including interpreting the slope and intercept. Identify ways to refine the question, data collection, visualization, or analysis. (MP 3, 4)
8.D.6 Explore, describe and compare variability in bivariate data for categorical variables by constructing two-way tables. Calculate and interpret relative frequencies for rows or columns in a two-way table. Attend to precision and reasonableness. (MP 6)
8.D.7 Construct, analyze, and communicate clear and reasonable arguments to answer investigative questions about the association between categorical bivariate data. Use the relative frequencies calculated for rows or columns as evidence to justify and describe possible associations between the two variables. (MP 3)

Utah Standards

	Strong alignment
	Partial alignment
Different Singapore grade level	
Weak alignment	
Utah only--No Singapore analog	

Different Utah grade level	
Singapore only	

Singapore
Sec 1 N2.1–N2.5 ratio (comparison by ratio; dividing a quantity in a given ratio; ratios involving fractions and decimals; equivalent ratios; simplest form)
Sec 2 N2.6 direct and inverse proportion
Sec 2 N4.1 rates and average rates (including the concepts of speed and average speed)
Sec 1 N3.1–N3.8 Percentage (expressing percentage as a fraction or decimal; finding the whole given a percentage part; expressing one quantity as a percentage of another; comparing two quantities by percentage; percentages greater than 100%; finding one quantity given the percentage and the other quantity; increasing/decreasing a quantity by a given percentage; finding percentage increase/decrease)
Sec 2 N7.1 solving linear equations in one variable Sec 2 N7.2 formulating a linear equation in one variable to solve problems
No corresponding Secondary 1 or 2 standard.
Sec 1 N1.4 calculations with calculator, including squares, cubes, square roots and cube roots Sec 1 N5.2 interpreting notations: a^2 as $a \times a$, a^3 as $a \times a \times a$, a^2b as $a \times a \times b$, ...
Sec 1 N5.3 evaluation of algebraic expressions and formulae Sec 2 N5.6 addition and subtraction of linear expressions Sec 2 N5.7 simplification of linear expressions, e.g. $-2(3x - 5) + 4x$; $(2x)/3 - (3(x - 5))/2$
Sec 1 N1.4 calculations with calculator, including squares, cubes, square roots and cube roots
No corresponding Secondary 1 or 2 standard. (Loosely related to Sec 1 N1.7 approximation and estimation.)
No corresponding Secondary 1 or 2 standard.

Sec 2 N6.5 the gradient of a linear graph as the ratio of the vertical change to the horizontal change (positive and negative gradients)

Sec 2 G2.5 properties of similar triangles and quadrilaterals: corresponding angles are equal; corresponding sides are proportional

Sec 2 N6.3 linear functions ($y = ax + b$)

Sec 2 N6.4 graphs of linear functions

Sec 2 N6.5 the gradient of a linear graph as the ratio of the vertical change to the horizontal change (positive and negative gradients)

Sec 2 N6.3 linear functions ($y = ax + b$)

Sec 2 N6.5 the gradient of a linear graph as the ratio of the vertical change to the horizontal change (positive and negative gradients)

No corresponding Secondary 1 or 2 standard.

Sec 2 N6.2 graph of a set of ordered pairs as a representation of a relationship between two variables

Sec 2 N6.3 linear functions ($y = ax + b$)

Sec 1 N5.4 recognising number sequences (including evaluating simple n th term like $n + 3$ and $2n + 1$)

Sec 1 G2.1–G2.3 symmetry (line and rotational symmetry; lines of symmetry; order of rotational symmetry)

Sec 2 N6.2 graph of a set of ordered pairs as a representation of a relationship between two variables

Sec 2 N6.3 linear functions ($y = ax + b$)

Sec 2 N6.4 graphs of linear functions

Sec 2 N6.4 graphs of linear functions

No corresponding Secondary 1 or 2 standard.

Sec 1 N1.5 representation and ordering of numbers on the number line

Sec 1 N1.7 approximation and estimation (including rounding off numbers to a required number of decimal places or significant figures and estimating the results of computation)

Sec 1 N1.7 approximation and estimation (including rounding off numbers to a required number of decimal places or significant figures and estimating the results of computation)
No corresponding Secondary 1 or 2 standard.
Sec 1 N1.2 integers and their four operations
Sec 1 N1.3 four operations on fractions and decimals (including negative fractions and decimals)
Sec 2 G2.4 congruent and similar figures Sec 1 G2.1 line and rotational symmetry of plane figures
Sec 2 G2.4 congruent and similar figures Sec 2 G2.5 properties of similar triangles and quadrilaterals: corresponding angles are equal; corresponding sides are proportional
Sec 2 G2.4 congruent and similar figures
Sec 1 G1.3 angles formed by two parallel lines and a transversal: corresponding angles, alternate angles, interior angles Sec 1 G1.2 vertically opposite angles, angles on a straight line and angles at a point Sec 2 G1.4 properties of triangles and special quadrilaterals
Sec 2 G3.1 use of Pythagoras' theorem Sec 2 G3.2 determining whether a triangle is right-angled given the lengths of three sides
Sec 2 G4.8 volume and surface area of prism and cylinder Sec 2 G3.1 use of Pythagoras' theorem
Sec 1 G4.1–G4.5 mensuration (area of triangle; area and circumference of circle; area of parallelogram and trapezium; perimeter/area of composite figures; volume and surface area of cube and cuboid)

Sec 2 G1.6 construction of simple geometrical figures from given data ... using compasses, ruler, set squares and protractor where appropriate
Sec 2 S1.6 purposes and uses of mean, mode and median
Sec 2 S1.7 calculation of the mean, mode and median for a set of ungrouped data
Sec 2 S2.1 probability as a measure of chance
Sec 2 S2.2 probability of single events ...
Sec 1 S1.1 simple concepts in collecting, classifying and tabulating data Sec 1 S1.2 analysis and interpretation of: tables, bar graphs, pictograms, line graphs, pie charts
Sec 1 S1.1 simple concepts in collecting, classifying and tabulating data
No corresponding Secondary 1 or 2 standard.
No corresponding Secondary 1 or 2 standard.
No corresponding Secondary 1 or 2 standard.
Sec 1 S1.1 simple concepts in collecting, classifying and tabulating data
No corresponding Secondary 1 or 2 standard.

9.7%
35.5%
0.0%
22.6%
32.3%
100.0%

13
0

Alignment
Different Utah grade level
Different Utah grade level
Different Utah grade level
Different Utah grade level
Partial
Utah only
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Utah only

Commentary
Ratio, proportion and rate/speed are not Utah Grade 8 content; in Utah they are addressed in Grade 7 (7.RP).
Percentage is Utah Grade 7 content (7.RP.2, 7.RP.3, 7.RP.6), not Grade 8.
Solving single-variable linear equations matches N7.1–N7.2. Solving inequalities and absolute-value equations are not part of the Singapore Sec 1–2 syllabus.
Systems of two linear equations are not in the Singapore Sec 1–2 (G1) syllabus; simultaneous equations appear in later Singapore levels.
Singapore Sec 1–2 only uses square/cube notation and calculator computation of powers/roots. The laws/properties of integer exponents (including zero and negative exponents) are not developed in the G1 Sec 1–2 sequence.
Evaluating expressions (N5.3) and simplifying linear expressions with rational coefficients (N5.6–N5.7) align well. Utah's extension to exponent and polynomial terms goes beyond the linear-expression scope of G1.
Singapore computes squares, cubes, square roots and cube roots (with a calculator). Utah frames the skill as solving $x^2 = p$ / $x^3 = p$ and stresses small perfect squares/cubes evaluated without a calculator — related skill, different framing.
Powers of ten / standard form and order-of-magnitude comparison are not in the Singapore Sec 1–2 syllabus; standard form is introduced in later Singapore levels.
Scientific notation / standard form and operations with it are not part of Singapore Sec 1–2; they appear in later Singapore levels.

Gradient (N6.5) and properties of similar triangles (G2.5) are present in Sec 2. Utah integrates them — using similar triangles to justify constant slope and linking unit rate to slope — which is a deeper, explanatory expectation.
Representing linear relationships with equations and graphs and interpreting gradient match Sec 2 N6.3–N6.5 closely; the y-intercept is implicit in $y = ax + b$, though Utah names intercept interpretation explicitly.
Rate of change maps strongly to gradient (N6.5) and the linear function $y = ax + b$ (N6.3); the initial value is the constant b (implicit). Interpreting these across multiple representations and contexts is a fuller Utah expectation.
Comparing linear vs non-linear functions requires non-linear functions, which are not part of Singapore Sec 1–2.
Singapore introduces linear functions and relationships between variables (N6.2–N6.3), but the formal relation-vs-function distinction (and arguing whether a relation is a function) is not addressed.
Number sequences/nth term and symmetry have no Utah Grade 8 standard (symmetry is taught in earlier Utah grades).
Singapore introduces linear functions and their graphs (N6.2–N6.4); constructing/modelling a function from several given representations is a somewhat stronger expectation in Utah.
Linear graphs are in Sec 2 (N6.4), but non-linear graphs and qualitative feature analysis (increasing/decreasing intervals, maxima/minima) are not in Singapore Sec 1–2.
Irrational numbers as a number set and their properties are not introduced in Singapore Sec 1–2; they appear in later Singapore levels.
Ordering numbers on the number line and approximation/estimation are in Sec 1, but they are not applied to irrational numbers specifically.

Estimation/approximation is in Sec 1, but estimating expressions containing irrational numbers is not a distinct Singapore Sec 1–2 skill.
Reasoning about closure/properties of rational and irrational numbers is not in Singapore Sec 1–2.
Operations with signed rationals is Utah Grade 7 content (7.NS, 7.G.1–7.G.2), not Grade 8.
Congruent figures are in Sec 2 (G2.4) and reflection/rotation ideas in Sec 1 symmetry (G2.1). However, Singapore defines congruence by matching rather than through rigid transformations, so the transformation-based definition/justification differs.
Similar figures and their properties are in Sec 2 (G2.4–G2.5). Utah's transformation/dilation-based definition and justification differs from Singapore's property-based treatment.
Both concepts appear together in G2.4, so the congruence/similarity distinction is supported; the explicit transformation-based comparison is a Utah-specific framing.
Both components are covered: parallel-line/transversal angles in Sec 1 (G1.3, with G1.2) and triangle angle properties in Sec 2 (G1.4). Utah adds an explicit informal-argument/justification emphasis.
Use of Pythagoras' theorem matches Sec 2 G3.1–G3.2 directly. Finding distance between coordinate points and explaining proofs of the theorem are Utah extensions of the same content.
Cylinder volume/surface area (G4.8) and right-triangle/Pythagoras problems (G3.1) are in Sec 2, but cones and spheres are not in the Singapore Sec 1–2 syllabus.
Area/perimeter/volume of these plane figures and prisms are Utah Grade 7 content (7.G.3–7.G.4); Utah Grade 8 measurement is limited to right-triangle problems and cones/cylinders/spheres (8.G.6).

Geometric construction is Utah Grade 7 content (7.NS, 7.G.1–7.G.2), not Grade 8.
Measures of center and probability are Utah Grade 7 content (7.D.3–7.D.8), not Grade 8 (Grade 8 statistics is bivariate).
Singapore statistics handles single-variable data collection and displays; investigating bivariate association between two quantities is not in Sec 1–2.
Collecting, classifying and tabulating data (S1.1) overlaps with generating/organising data; the bivariate-association purpose is beyond Singapore Sec 1–2.
Scatter plots and lines of best fit are not in Singapore Sec 1–2 (single-variable displays such as dot diagrams and histograms appear in Sec 2).
Patterns of bivariate association (clustering, direction, outliers) are not addressed in Singapore Sec 1–2.
Interpreting bivariate data with a linear model (slope/intercept) is not in Singapore Sec 1–2.
Classifying and tabulating data (S1.1) is present, but two-way (contingency) tables and relative frequencies for bivariate categorical data are not covered.
Arguing about categorical association from relative frequencies is not in Singapore Sec 1–2.

Utah strand	Total Utah standards
#RP standards	0
#A standards	9
#F standards	5
#NS standards	4
#G standards	6
#D standards	7
Total	31

Strong	Partial	Weak	Different Singapore grade-level
0	0	0	0
1	4	1	0
0	2	2	0
0	0	2	0
2	4	0	0
0	1	2	0
3	11	7	0

Utah only	Different Utah grade level	Singapore only
0	4	0
3	0	0
1	1	0
2	2	0
0	6	0
4	0	0
10	13	0

Grade	Strand	Total Utah standards	Strong
1	#OA standards	8	1
1	#NBT standards	7	3
1	#MG standards	7	1
1	#D standards	4	0
2	#NBT standards	7	3
2	#OA standards	4	1
2	#MG standards	10	3
2	#D standards	4	0
3	#OA standards	7	4
3	#NBT standards	4	2
3	#NF standards	4	3
3	#MG standards	8	3
3	#D standards	4	0
4	#OA standards	6	1
4	#NBT standards	7	4
4	#NF standards	8	5
4	#MG standards	6	2
4	#D standards	4	0
5	#OA standards	3	1
5	#NBT standards	10	6
5	#NF standards	5	3
5	#MG standards	4	2
5	#D standards	4	0
6	#A standards	6	1
6	#NS standards	7	2
6	#RP standards	5	4
6	#G standards	4	1
6	#D standards	4	0
7	#RP standards	7	1
7	#A standards	4	1
7	#NS standards	4	3
7	#G standards	5	3
7	#D standards	8	1
8	#A standards	9	1
8	#F standards	5	0
8	#NS standards	4	0
8	#G standards	6	2
8	#D standards	7	0

Utah standards				
Partial	Weak	Utah standard appears in different Singapore grade level	Utah only/no Singapore counterpart	
5	2	0	0	
4	0	0	0	
4	2	0	0	
2	2	0	0	
4	0	0	0	
3	0	0	0	
3	3	0	1	
2	2	0	0	
1	2	0	0	
1	0	0	1	
1	0	0	0	
2	3	0	0	
3	1	0	0	
2	3	0	0	
3	0	0	0	
2	1	0	0	
3	1	0	0	
2	2	0	0	
1	1	0	0	
4	0	0	0	
1	1	0	0	
1	0	0	1	
1	3	0	0	
4	1	0	0	
2	0	0	3	
1	0	0	0	
2	0	0	1	
1	3	0	0	
6	0	0	0	
3	0	0	0	
1	0	0	0	
2	0	0	0	
4	3	0	0	
4	1	0	3	
2	2	0	1	
0	2	0	2	
4	0	0	0	
1	2	0	4	
92	43	0	17	

Singapore standards	
Singapore standard appears in other Utah grade level	Singapore only/no Utah counterpart
0	0
2	0
0	0
0	0
1	0
0	1
1	0
0	0
0	0
0	0
0	0
3	2
0	0
0	0
0	1
0	1
1	1
0	0
0	0
0	0
2	0
4	0
0	0
0	0
0	0
0	1
0	2
0	0
0	0
0	0
3	0
5	0
0	0
0	0
1	0
2	0
6	0
0	0
31	9

Domain	Grade	Strand	Total standards	Strong
	1	#NBT standards	7	3
	2	#NBT standards	7	3
	3	#NBT standards	4	2
	3	#NF standards	4	3
	4	#NBT standards	7	4
	4	#NF standards	8	5
	5	#NBT standards	10	6
	5	#NF standards	5	3
	6	#NS standards	7	2
	7	#NS standards	4	3
	8	#NS standards	4	0
Number & Operations total			67	34
	6	#RP standards	5	4
	7	#RP standards	7	1
	8	#RP standards	0	0
Ratios & Proportional Reasoning total			12	5
	1	#OA standards	8	1
	2	#OA standards	4	1
	3	#OA standards	7	4
	4	#OA standards	6	1
	5	#OA standards	3	1
	6	#A standards	6	1
	7	#A standards	4	1
	8	#A standards	9	1
Algebraic Thinking total			47	11
	7	#F standards	3	0
	8	#F standards	2	0
Functions total			5	0
	1	#MG standards	7	1
	2	#MG standards	10	3
	3	#MG standards	8	3
	4	#MG standards	6	2
	5	#MG standards	4	2
	6	#G standards	4	1
	7	#G standards	5	3
	8	#G standards	6	2
Geometry & Measurement total			50	17
	1	#D standards	4	0
	2	#D standards	4	0
	3	#D standards	4	0

4	#D standards	4	0
5	#D standards	4	0
6	#D standards	4	0
7	#D standards	8	1
8	#D standards	7	0
Statistics & Data Science total		39	1

Utah standards			
Partial	Weak	Utah standard appears in different Singapore grade level	Utah only/no Singapore counterpart
4	0	0	0
4	0	0	0
1	0	0	1
1	0	0	0
3	0	0	0
2	1	0	0
4	0	0	0
1	1	0	0
2	0	0	3
1	0	0	0
0	2	0	2
23	4	0	6
1	0	0	0
6	0	0	0
0	0	0	0
7	0	0	0
5	2	0	0
3	0	0	0
1	2	0	0
2	3	0	0
1	1	0	0
4	1	0	0
3	0	0	0
4	1	0	3
23	10	0	3
0	0	0	0
2	2	0	1
2	2	0	1
4	2	0	0
3	3	0	1
2	3	0	0
3	1	0	0
1	0	0	1
2	0	0	1
2	0	0	0
4	0	0	0
21	9	0	3
2	2	0	0
2	2	0	0
3	1	0	0

2	2	0	0
1	3	0	0
1	3	0	0
4	3	0	0
1	2	0	4
16	18	0	4

Singapore standards	
Singapore standard appears in other Utah grade level	Singapore only/no Utah counterpart
2	0
1	0
0	0
0	0
0	1
0	1
0	0
2	0
0	0
3	0
2	0
10	2
0	1
0	0
4	0
4	1
0	0
0	1
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	1
4	0
1	0
5	0
0	0
1	0
3	2
1	1
4	0
0	2
5	0
6	0
20	5
0	0
0	0
0	0

0	0
0	0
0	0
0	0
0	0
0	0

0	0
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% of Utah Standards with Strong
or Partial Alignment to Singapore
Same Grade Band Standards





Domain	Topic
Algebra	Interpreting Equations & Their Components
Algebra	
Algebra	Solving Equations
Algebra	
Algebra	Algebraic Modeling
Algebra	
Algebra	
Algebra	
Algebra	Algebraic Structure
Algebra	
Algebra	
Algebra	

Functions	Functions Basics
Functions	
Functions	
Functions	
Functions	Functions and Sequences
Functions	
Functions	
Functions	Comparing Linear and Exponential Functions
Functions	
Functions	

Functions	
Functions	Quadratic Functions & Expressions
Functions	
Functions	
Functions	
Functions	
Geometry	Rigid Transformations
Geometry	
Geometry	
Geometry	

Geometry	
Geometry	Geometric Constructions
Geometry	Attributes of Shapes
Geometry	Scale & Measurement
Geometry	Trigonometry & Triangle Similarity
Geometry	Area & Volume
Geometry	Circles
Data Science	
Data Science	
Data Science	

Data Science	Data & Statistical Reasoning
Data Science	
Data Science	
Data Science	
Matrices & Vectors	Matrix Operations
Matrices & Vectors	
Matrices & Vectors	
Matrices & Vectors	Modeling with Matrices
Matrices & Vectors	

Matrices & Vectors	
Matrices & Vectors	
Matrices & Vectors	Solving Systems with Matrices

of Utah S1 Standards:
40

Utah
S1.A.1 Use the structure of linear expressions and exponential expressions with integer exponents to identify parts of the expression and interpret their meaning in context. Interpret complicated expressions (such as $P(1+r)^n$) by viewing one or more of their parts as a single entity. (MP 7)
S1.A.3 Use algebraic properties of equality as tools to rearrange formulas to isolate a quantity of interest. (MP 5)
S1.A.4 Solve linear equations and inequalities using algebraic tools, starting from the assumption that a solution exists. Communicate clear arguments for equations that do not have one unique solution and justify the results. Interpret solutions and use both inequality and interval notation. (MP 3, 5)
S1.A.5 Solve systems of linear equations using algebraic tools. Understand and justify how equations are manipulated while maintaining the consistency of the system. (MP 3, 5)
S1.A.2 Build symbolic models of linear equations and inequalities, and use them to solve problems in and out of context. (MP 3, 4)
S1.A.6 Interpret whether a solution of a system of linear equations and inequalities is viable or non-viable using graphic and analytic models. Use models of systems of linear equations and inequalities to interpret whether a solution is viable or non-viable. (MP 4)
S1.A.7 Build and use graphic models to analyze and solve systems of two linear equations as well as systems of one linear equation and one exponential equation in two variables and interpret their solutions. (MP 4)
S1.A.8 Build and use graphic models to show the solutions to a linear inequality in two variables as a half-plane, and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes. (MP 4)
(No Utah Secondary Math I standard)
(No Utah Secondary Math I standard)
(No Utah Secondary Math I standard)
(No Utah Secondary Math I standard)

S1.F.1 Construct and communicate clear arguments to justify whether a relation is a function. (MP 3)

S1.F.2 Understand the structure of function notation, if f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x . The graph of f is the graph of the equation $y = f(x)$. (MP 7)

S1.F.3 Evaluate functions for inputs in their domains and interpret statements that use function notation in terms of a context. (MP 2)

S1.F.5 Understand and interpret the features of a function represented graphically, numerically and symbolically using interval notation and inequalities by applying and removing context. Focus on these key features: domain, range, intervals of increase and/or decreasing, location of absolute maximum and/or absolute minimum, and intercepts. Build graphic models that satisfy given key features. (MP 2, 4)

S1.F.4 Build and use explicit and recursive equations to model arithmetic and geometric sequences using function notation. Describe and represent the domain of these models as a subset of the integers. (MP 4, 7)

S1.F.8 Build a function that models linear or exponential relationships. Appropriately use explicit and recursive rules to model these relationships and translate between the two forms. (MP 4)

S1.F.9 Construct arguments that use the structures and patterns of relationships to connect arithmetic sequences to linear functions and geometric sequences to exponential functions. (MP 3, 7)

S1.F.6 Build representations that show key features of linear and exponential functions expressed symbolically. Select and use appropriate tools to model with and without technology. (MP 4, 5)

S1.F.7 Compare and contrast the properties of linear and exponential functions (represented in different ways). Formulate and ask questions to highlight the similarities and differences between the functions. (MP 1)

S1.F.10 Use structures and patterns to identify the effect of k on the graph when replacing $f(x)$ by $f(x) + k$. Explore specific values of k for linear and exponential functions in and out of context. (MP

S1.F.11 Communicate clear and reasonable arguments to distinguish between situations that can be modeled with linear functions, exponential functions, or neither. Connect the structure of linear and exponential functions with their parameters, ($y=mx+b$, $y=bx(a)$). Justify that a quantity increasing exponentially eventually exceeds a quantity increasing linearly. (MP 3, 7)

(No Utah Secondary Math I standard)

(No Utah Secondary Math I standard)

(No Utah Secondary Math I standard)

(No Utah Secondary Math I standard)

(No Utah Secondary Math I standard)

S1.G.1 Describe and represent the underlying structure of translations, rotations and reflections, in terms of angles, circles, perpendicular lines, parallel lines, and line segments. (MP 7)

S1.G.2 Construct and clearly communicate definitions of the rigid transformations to show that these transformations are functions that take points in the plane as inputs and give corresponding points as outputs. (MP 3)

S1.G.3 Select and use tools to strategically perform rigid transformations. Attend to precision when identifying and describing the transformation or the sequence of transformations to determine whether or not two figures are congruent. Understand that the image created from a rigid transformation or a sequence of rigid transformations is congruent to the pre-image. (MP 5, 6)

S1.G.4 Construct and communicate clear and reasonable arguments about reflection and rotational symmetries of parallelograms and regular polygons. Use reflections and rotations to informally justify attributes of parallelograms including rhombus, rectangles and squares. (MP 3)

S1.G.6 Construct, justify and communicate clear arguments that show how the criteria for triangle congruence (ASA, SAS, SSS) can be established using the definition of congruence in terms of rigid motions. (MP 3)
S1.G.5 Precisely construct geometric objects including equilateral triangle, rhombus, square, parallel line, perpendicular bisector, and angle bisector. Communicate clearly about the use of geometric construction tools and analyze the underlying structure of geometric objects as revealed by the tools. (MP 3)
S1.G.7 Justify whether or not a quadrilateral has the attributes of a square, rectangle, rhombus or parallelogram. Connect the Pythagorean Theorem to the distance formula and utilize slope along with distance as a means for justification. (MP 3)
(No Utah Secondary Math I standard)
(No Utah Secondary Math I standard)
(No Utah Secondary Math I standard)
(No Utah Secondary Math I standard)
S1.D.1 Ask statistical questions to investigate situations that can be explored using random samples from populations to make inferences about differences between two populations or associations between two quantitative variables. Explain and justify the distinction between correlation and causation. (MP 1, 3)
S1.D.2 Select the appropriate statistical tools to create a data collection plan. Collect and organize primary data for the statistical investigative question of interest or determine the validity that the data collected is useful to answer the statistical question of interest when using secondary data. (MP 5)
S1.D.3 Compare two or more distributions with precision by selecting graphical displays (dot plots, histograms, and modified box plots to show outliers) that highlight features of interest. Analyze data by comparing measures of center (mean and median) and measures of variability (range, inter-quartile range and standard deviation) that are appropriate for the shape (skew, symmetry, outliers, modes) of the data distribution. Recognize how standard deviation builds on the mean absolute deviation and is another measure of how data values vary in a distribution. (MP 6)

S1.D.4 Analyze data to explore the association between two quantitative variables by using a scatterplot to determine and describe patterns of association such as clustering, positive or negative association, linear or nonlinear association, and effects of outliers. Use technology to find and interpret the correlation coefficient and use it to assess the strength of the linear relationship. Attend to precision and reasonableness with calculations. (MP 6)
S1.D.5 Analyze and use statistical evidence to evaluate results and answer statistical investigative questions about the differences between two or more population parameters. Identify ways to refine the question, data collection, visualization, or analysis. (MP 8)
S1.D.6 Justify statistical reasoning to evaluate results from analyses to answer the statistical investigative question about associations between two quantitative variables. For scatter plots that suggest a linear association, represent the relationship with a line of best fit and use the model of the linear equation to solve problems, including interpreting the slope and intercept in the context of the data. Justify statistical reasoning and results to others in a variety of formats including verbal, written, and visual. (MP 3, 8)
(No Utah Secondary Math I standard)
S1.M.1 Add, subtract, and multiply matrices of appropriate dimensions using algebraic tools for smaller matrices and technology for larger matrices. (MP 5)
S1.M.3 Communicate understanding that, unlike multiplication of numbers, matrix multiplication for square matrices is not a commutative operation, but still satisfies the associative and distributive properties. (MP 3)
S1.M.4 Communicate understanding that the zero and identity matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers. The determinant of a square matrix is nonzero if and only if the matrix has a multiplicative inverse. (MP 3)
S1.M.2 Use matrices to represent and manipulate data (e.g., to represent payoffs or incidences relationships in a network). Multiply matrices by scalars to produce new matrices and make sense of this product by connecting it with and without a context. (MP 2, 4)
S1.M.5 Use 2x2 matrices to model transformations of the plane, and interpret the absolute value of the determinant in terms of area. (MP 4, 7)

S1.M.6 Model a system of linear equations as a single-matrix equation in a vector variable. (MP 4)
S1.M.7 Solve systems of linear equations up to three variables using matrix row reduction and technology as tools. (MP 5)
S1.M.8 Find the inverse of a matrix if it exists using technology or algebraic tools, and use the inverse to solve systems of linear equations (using technology for matrices of dimensions 3x3 or greater). (MP 5)

Strong alignment
Partial alignment
Different grade level
Weak alignment
Utah only--No Singapore analog

Different Utah Grade
Singapore only

Alignment Notes

Putting the two courses side by side against Singapore Sec 3/4 gives exactly the contrast you were after — they sit very differently against the same Singapore content:

Secondary Math I (40 standards): 2 strong, 8 partial, 6 weak, 24 Utah-only. It aligns weakly because its backbone — linear *and exponential* functions, formal function notation, transformation-based congruence and proof, coordinate geometry, bivariate statistics, and matrices — is largely absent from Singapore G1 Sec 3/4. The only clean matches are rearranging formulae (S1.A.3 $\leftrightarrow$ N5.11) and systems of linear equations (S1.A.5 $\leftrightarrow$ N7.5).

Secondary Math II (43 standards): 4 strong, 11 partial, 7 weak, 21 Utah-only. This is where Singapore Sec 3/4 actually lands. The content that was "Singapore only" in the Math I comparison now finds homes:

Solving quadratics $\rightarrow$ S2.A.4 $\leftrightarrow$ N7.7 (formula) + N5.14 (factoring)
— **strong**

Right-triangle trigonometry $\rightarrow$ S2.G.4 and S2.G.6 $\leftrightarrow$ G3.3 — **strong**

Volume of cylinders/pyramids/cones/spheres $\rightarrow$ S2.G.12 $\leftrightarrow$ G4.10 —
strong

Plus partial matches across quadratic functions/graphs
(S2.F.1/F.3/F.4/F.8 $\leftrightarrow$ N6.6/N6.7) and arc/sector mensuration
(S2.G.9/G.11 $\leftrightarrow$ G4.12).

The Math II "Utah only" block is now concentrated in genuinely more-advanced or differently-sequenced content: complex numbers and the Fundamental Theorem of Algebra, circle theorems, the coordinate equation of a circle, all of bivariate statistics, and the vector/conic extended topics.

Two takeaways for your purposes: first, Singapore's G1 upper-secondary content is best understood as straddling Utah Math I *and* II rather than matching either cleanly — the algebra/statistics in Sec 3/4 echoes Utah Math I, while the quadratics/trig/mensuration echoes Math II. Second, the persistent gaps run in both directions: Utah carries exponential functions, transformation geometry, formal proof, and bivariate statistics that this Singapore band doesn't, while even Singapore's mainstream content (circle theorems, indices with fractional powers, vectors) sits above the G1 band shown here. If you can supply a G3/0-Level syllabus, the Math II tab in particular would tighten considerably.

Singapore
Sec 3/4 N1.8 use of index notation for integer powers
Sec 3/4 N5.11 changing the subject of a simple formula Sec 3/4 N5.12 finding the value of an unknown quantity in a given formula
Sec 3/4 N7.4 solving simple fractional equations that can be reduced to linear equations (Sec 2 N7.1 solving linear equations in one variable)
Sec 3/4 N7.5 solving simultaneous linear equations in two variables by: substitution and elimination methods; graphical method
(Sec 2 N7.2 formulating a linear equation in one variable to solve problems)
Sec 3/4 N7.5 solving simultaneous linear equations in two variables by: substitution and elimination methods; graphical method
Sec 3/4 N7.5 solving simultaneous linear equations in two variables by: ... graphical method
No corresponding Secondary 3/4 standard.
Sec 3/4 N1.9 use of standard form $A \times 10^n$, where n is an integer, and $1 \leq A < 10$
Sec 3/4 N5.9 expansion of the product of two linear expressions
Sec 3/4 N5.10 multiplication and division of simple algebraic fractions
Sec 3/4 N5.13 factorisation of linear expressions of the form $ax + k$

Sec 3/4 N6.6 quadratic functions ($y = ax^2 + bx + c$) <Sec 4>
Sec 3/4 N6.7 graphs of quadratic functions and their properties <Sec 4>
Sec 3/4 N5.12 finding the value of an unknown quantity in a given formula
Sec 3/4 N6.7 graphs of quadratic functions and their properties <Sec 4>: positive or negative coefficient of x^2 ; maximum and minimum points; symmetry
Sec 3/4 N5.8 recognising and representing number sequences (include finding an algebraic expression for the n th term for simple cases such as $n + 3$ and $2n + 1$)
Sec 3/4 N7.6 formulating a pair of linear equations in two variables to solve problems
Sec 3/4 N5.8 recognising and representing number sequences (include finding an algebraic expression for the n th term ...)
Sec 3/4 N7.3 graphs of linear equations in two variables ($ax + by = c$) Sec 3/4 N6.7 graphs of quadratic functions and their properties <Sec 4>
No corresponding Secondary 3/4 standard.
No corresponding Secondary 3/4 standard.

No corresponding Secondary 3/4 standard.

Sec 3/4 N5.14 factorisation of quadratic expressions of the form $x^2 + px + q$

Sec 3/4 N6.6 quadratic functions ($y = ax^2 + bx + c$) <Sec 4>

Sec 3/4 N6.7 graphs of quadratic functions and their properties <Sec 4>

Sec 3/4 N7.7 solving quadratic equations in one variable by use of formula

Sec 3/4 N7.8 formulating a quadratic equation in one variable to solve problems

No corresponding Secondary 3/4 standard.

No corresponding Secondary 3/4 standard.

No corresponding Secondary 3/4 standard.

No corresponding Secondary 3/4 standard.

No corresponding Secondary 3/4 standard.
No corresponding Secondary 3/4 standard.
No corresponding Secondary 3/4 standard.
Sec 3/4 N2.7 map scales (distance and area)
Sec 3/4 G3.3 use of trigonometric ratios (sine, cosine and tangent) of acute angles to calculate unknown sides and angles in right-angled triangles (including problems involving angles of elevation and depression)
Sec 3/4 G4.10 volume and surface area of pyramid, cone and sphere
Sec 3/4 G4.12 arc length and sector area as fractions of the circumference and area of a circle
No corresponding Secondary 3/4 standard.
No corresponding Secondary 3/4 standard.
Sec 3/4 S1.8 percentiles, quartiles, range and interquartile range (Sec 2 S1.6–S1.7 mean, mode and median for a set of ungrouped data)

No corresponding Secondary 3/4 standard.
No corresponding Secondary 3/4 standard.
No corresponding Secondary 3/4 standard.
Sec 3/4 S1.9 analysis and interpretation of cumulative frequency diagrams
No corresponding Secondary 3/4 standard. (Secondary Math I extended topic.)
No corresponding Secondary 3/4 standard. (Secondary Math I extended topic.)
No corresponding Secondary 3/4 standard. (Secondary Math I extended topic.)
No corresponding Secondary 3/4 standard. (Secondary Math I extended topic.)
No corresponding Secondary 3/4 standard. (Secondary Math I extended topic.)

No corresponding Secondary 3/4 standard. (Secondary Math I extended topic.)
No corresponding Secondary 3/4 standard. (Secondary Math I extended topic.)
No corresponding Secondary 3/4 standard. (Secondary Math I extended topic.)

2.5%
 20.0%
 5.0%
 15.0%
 55.0%
 97.5%

 12
 2

Alignment	Commentary
Weak	Index notation for integer powers (N1.8) is the only related element. Interpreting the structure of expressions — especially exponential/compound forms such as $P(1+r)^n$ — is not part of the Singapore G1 syllabus, which has no exponential expressions.
Strong	Changing the subject of a formula (N5.11) is exactly rearranging a formula to isolate a quantity of interest; N5.12 adds evaluating the result.
Partial	Solving linear (and reducible-to-linear) equations matches N7.4 / Sec 2 N7.1. Solving inequalities, using interval notation, and reasoning about non-unique solutions are Utah-specific and absent from Singapore G1.
Strong	Solving simultaneous linear equations by substitution and elimination (N7.5) is a direct match for solving systems of linear equations with algebraic tools.
Partial	Building and solving linear-equation models matches N7.6 (and Sec 2 N7.2). modeling and solving inequalities is not part of the Singapore G1 syllabus.
Partial	Systems of linear equations and the graphical method are in N7.5, but systems involving inequalities and the analysis of solution viability are Utah-specific.
Partial	Solving linear-linear systems graphically matches N7.5. Systems involving an exponential equation are not in Singapore G1 (no exponential functions).
Utah only	Graphing linear inequalities in two variables (half-planes) and systems of inequalities are not part of the Singapore G1 syllabus.
Different Utah Grade	Standard form is Utah Grade 8 (8.A.4–8.A.5)
Different Utah Grade	Expanding binomials and factorising quadratics are Utah Secondary Math II.
Singapore only	This content is not explicitly addressed in the Utah standards.
Different Utah Grade	Linear factoring appears in Utah Grade 7.

Weak	Singapore names function families (linear, quadratic) but does not treat the formal relation-vs-function distinction or require justifying whether a relation is a function.
Weak	Singapore expresses functions in $y = \dots$ form (N6.6–N6.7) but does not use or formalise $f(x)$ function notation, domain, or the $y = f(x)$ graph definition.
Partial	Substituting values into a formula (N5.12) is equivalent to evaluating a function for given inputs; interpreting $f(x)$ notation in context is Utah-specific.
Partial	Maximum/minimum points and symmetry of graphs (N6.7) overlap with interpreting key features, but Singapore's treatment is quadratic-specific (Sec 4), while Utah covers linear/exponential functions with domain, range, intervals and interval notation.
Partial	Finding an explicit n th-term expression for simple sequences matches N5.8. Geometric sequences, recursive rules, function notation, and the integer-domain framing are Utah extensions.
Weak	modeling linear relationships loosely relates to N7.6, but exponential modeling and explicit/recursive rule translation are not in Singapore G1.
Weak	Number sequences (N5.8) provide the arithmetic sequence link, but connecting sequences to linear/exponential functions, especially geometric-to-exponential, is not developed in Singapore G1.
Weak	Linear graphs (N7.3) relate to representing linear functions, but Singapore G1 does not address no exponential functions; its non-linear graphing focus is quadratic, not exponential.
Utah only	Comparing linear and exponential functions requires exponential functions, which are not in the Singapore G1 syllabus.
Utah only	Graph transformations (the effect of k in $f(x) + k$) are not part of the Singapore G1 syllabus.

Utah only	Distinguishing and comparing linear vs exponential growth requires exponential functions, which are not in the Singapore G1 syllabus.
Different Utah Grade	Quadratic functions, their graphs, and quadratic equations are Utah Secondary Math II content, not Secondary Math I.
Different Utah Grade	Quadratic functions, their graphs, and quadratic equations are Utah Secondary Math II content, not Secondary Math I.
Different Utah Grade	Quadratic functions, their graphs, and quadratic equations are Utah Secondary Math II content, not Secondary Math I.
Different Utah Grade	Quadratic functions, their graphs, and quadratic equations are Utah Secondary Math II content, not Secondary Math I.
Different Utah Grade	Quadratic functions, their graphs, and quadratic equations are Utah Secondary Math II content, not Secondary Math I.
Utah only	Transformation geometry (structure of translations, rotations, reflections) is not in Singapore G1 Secondary 3/4; symmetry appears earlier (Sec 1) and is not developed this way.
Utah only	Defining rigid transformations as functions is not part of the Singapore G1 syllabus.
Utah only	Establishing congruence through rigid transformations is not in Secondary 3/4. Congruent/similar figures appear earlier (Sec 2 G2.4) but not via transformations.
Utah only	Symmetry is Singapore Sec 1 (G2.1–G2.3) and special-quadrilateral properties are Sec 2 (G1.4); neither is in Secondary 3/4, and the transformation-based justification is Utah-specific.

Utah only	Triangle-congruence criteria (ASA, SAS, SSS) and proof via rigid motions are not in the Singapore G1 syllabus.
Different grade level	Geometric construction is Singapore Sec 2 (G1.5–G1.6), not part of the Secondary 3/4 content.
Different grade level	Coordinate-geometry justification (distance formula, slope) is not in Singapore G1. Pythagorean Theorem and special-quadrilateral properties appear earlier (Sec 2), not in Secondary 3/4.
Different Utah Grade	Map scales/scale drawings are Utah Grade 7 (7.G.1). Neither is a Secondary Math I standard.
Different Utah Grade	Right-angled trigonometry is Utah Secondary Math II, not Secondary Math I.
Different Utah Grade	Volume of cones/spheres is introduced in Utah Grade 8 (8.G.6).
Different Utah Grade	Solids, arc length and sector area are addressed in Utah Secondary Math II.
Utah only	Random sampling, inference about populations, bivariate association, and correlation/causation are not in Singapore G1 Secondary 3/4 statistics (which covers quartiles and cumulative frequency).
Utah only	Designing a data-collection plan and judging primary/secondary data validity are not part of Secondary 3/4. Basic data collection appears earlier (Sec 1 S1.1).
Partial	Range, quartiles and interquartile range match S1.8, and measures of center match Sec 2 S1.6–S1.7. Standard deviation, modified box plots, and comparing distributions by shape are not in Singapore G1.

Utah only	Scatterplots, bivariate association and the correlation coefficient are not part of the Singapore G1 syllabus at any level.
Utah only	Statistical inference about population parameters is not in the Singapore G1 syllabus.
Utah only	Scatterplots, lines of best fit and bivariate linear modeling are not part of the Singapore G1 syllabus.
Singapore only	Cumulative frequency diagrams are not part of the Utah Secondary Math I standards.
Utah only	Matrices are not part of the Singapore G1 syllabus.
Utah only	Matrices are not part of the Singapore G1 syllabus.
Utah only	Matrices are not part of the Singapore G1 syllabus.
Utah only	Matrices are not part of the Singapore G1 syllabus.
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Utah only	Matrices are not part of the Singapore G1 syllabus.
Utah only	Matrices are not part of the Singapore G1 syllabus.

Utah strand	Total Utah standards			Weak
		Strong	Partial	
#A standards	8	2	4	1
#F standards	11	0	3	5
#G standards	7	0	0	0
#D standards	6	0	1	0
#MV standards	8	0	0	0
Total	40	2	8	6

Different Singapore grade- level	Utah only	Different Utah grade level	Singapore only	
0	1	0	1	2-13
0	3	0	0	14-29
2	5	0	0	30-40
0	5	0	1	41-47
0	8	0	0	48-56
2	22	0	2	

Domain	Topic
Algebra	Linear & Quadratic Equations & Expressions
Algebra	
Algebra	
Algebra	
Algebra	
Algebra	Algebraic Structure
Algebra	
Algebra	
Algebra	
Algebra	
Functions	

Functions	
Functions	Features of Functions
Functions	
Functions	
Functions	
Functions	Modeling with Functions
Functions	
Functions	
Number Systems & Quantities	Rational Exponents
Number Systems & Quantities	
Number Systems & Quantities	

Number Systems & Quantities	Complex Numbers
Number Systems & Quantities	
Number Systems & Quantities	
Number Systems & Quantities	
Number Systems & Quantities	Scientific Notation
Geometry	Geometric Proofs

Geometry	Similarity & Dilations
Geometry	Trigonometry & Triangle Similarity
Geometry	
Geometry	
Geometry	
Geometry	Circles
Geometry	
Geometry	
Geometry	

Geometry	Area & Volume
Geometry	
Geometry	Cross Sections & Solids of Revolution
Geometry	
Geometry	Scale & Measurement
Data Science	Data & Statistical Reasoning
Data Science	
Data Science	
Data Science	
Data Science	

Data Science	
Matrices & Vectors	Vectors
Matrices & Vectors	
Matrices & Vectors	
Matrices & Vectors	
Matrices & Vectors	

of Utah S2 Standards:
43

Utah
S2.A.1 Use the structure of quadratic and exponential expressions by identifying parts of the expression and interpret in context (ie. Use vertex form of a quadratic to identify the maximum height of an object flying through the air).Use algebraic tools to produce equivalent forms that reveal different properties. (MP 2, 5, 7)
S2.A.2 Use addition, subtraction and multiplication to build new linear and quadratic functions. (MP 4)
S2.A.3 Build symbolic models of linear and quadratic equations and inequalities, and use them to solve problems in and out of context. (MP 3, 4)
S2.A.4 Select and use algebraic and technologic tools to strategically solve quadratic equations and inequalities in one variable. Algebraic tools include taking square roots, completing the square, the quadratic formula, and factoring. (MP 5)
S2.A.5 Select and use algebraic and technologic tools to strategically solve a system of equations consisting of a linear equation and a quadratic equation in two variables. Algebraic tools, including factoring and the quadratic formula, should be used in simpler cases, and technologic tools in more complicated cases. (MP 5)
(No Utah Secondary Math II standard)
(No Utah Secondary Math II standard)
(No Utah Secondary Math II standard)
(No Utah Secondary Math II standard)
(No Utah Secondary Math II standard)
S2.F.1 Understand and interpret the features of a function represented graphically, numerically and symbolically using interval notation and inequalities by applying and removing context. Focus on these key features: domain, range, intervals of increase and/or decrease, location of absolute maximum and/or absolute minimum, and intercepts. Build graphic models that satisfy given key features. (MP 2, 4)

S2.F.3 Build graphic representations that show key features of quadratic, linear, exponential, absolute value and piecewise functions expressed symbolically. Select and use appropriate tools to model with and without technology. (MP 4, 5)
S2.F.4 Compare and contrast the properties of quadratic, linear, exponential, absolute value and piecewise functions (represented in different ways), including zeros, extreme values, symmetry and percent rate, when appropriate. Formulate and ask questions to highlight the similarities and differences between function types. (MP 1)
S2.F.5 Select and use algebraic tools to create different but equivalent forms of functions that highlight different properties of the function. Contextualize and decontextualize these functions to interpret these properties. (MP 2, 5)
S2.F.7 Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(x+k)$ by exploring specific values of k for quadratic and absolute value functions in and out of context. Attend to precision of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are reasonable. (MP 3, 6)
S2.F.2 Determine the average rate of change of a function over a closed interval while attending to precision and reasonableness. Connect the average rate of change with context appropriately. (MP 2, 6)
S2.F.6 Build a function that models a quadratic relationship. Use structures and patterns to build an equation that models explicit reasoning, or a recursive process. Attend to the precision of notation and labeling while building and using these models. (MP 4, 6, 7)
S2.F.8 Communicate clear and reasonable arguments to distinguish between situations that can be modeled with quadratic, exponential, and linear functions. Interpret the structure of quadratic functions written in different forms with the features of their graphs. (MP 3, 7)
S2.NS.1 Extend understanding of the structure of integer exponent properties to rational exponents. (MP 8)
S2.NS.2 Use the properties of exponents as tools to rewrite expressions involving radicals and rational exponents in equivalent forms. (MP 5)
S2.NS.3 Use the Fundamental Theorem of Algebra to construct arguments that verify that the solutions to any quadratic equation will always be numbers within the set of complex numbers and will have the form $a + bi$ where a and b are real numbers. (MP 3)

S2.NS.4 Build and use models to solve quadratic equations with real coefficients that have complex solutions, rewriting x^2+4 as $(x + 2i)(x - 2i)$. (MP 4)

S2.NS.5 Find the conjugate of a complex number; use conjugates to find moduli and quotients of complex numbers. Represent the conjugate and moduli on the complex plane. (MP 7)

S2.NS.6 Represent complex numbers on the complex plane in rectangular form, and explain why the rectangular form of a given complex number represents the same number. (MP 3, 4)

S2.NS.7 Represent addition, subtraction, and multiplication geometrically on the complex plane; use properties of this representation for computation. (MP 4)

(No Utah Secondary Math II standard)

S2.G.1 Construct, justify and communicate clear and reasonable arguments to prove geometric theorems. Support refinement of reasoning by asking questions. Develop flexibility in creating logical arguments and proofs of various formats, including: narrative paragraphs, flow diagrams, two-column format, and diagrams without words. (MP 1, 3)

Proofs should focus on:

a. theorems about lines and angles; vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.

b. theorems about triangles; measures of interior angles of a triangle sum to 180° ; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.

c. theorems about parallelograms; opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals.

S2.G.2 Describe and represent the underlying structures and properties that define dilations and similar shapes. Use the structures and properties of dilation and similarity to solve problems. (MP 7)
S2.G.3 Build and use models that include congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures. Construct, justify and communicate a clear and reasonable proof of the Pythagorean Theorem using triangle similarity. (MP 3, 4)
S2.G.4 Describe and represent side ratios in right triangles based upon the underlying structure of similarity. Connect consistency across similar right triangles to definitions of trigonometric ratios for acute angles. (MP 7)
S2.G.5 Verify, justify and communicate the relationships that exist between trigonometric ratios and trigonometric identities. Keep the focus on the relationship between sine and cosine of complementary angles, the Pythagorean Identity, and the tangent ratio in terms of sine and cosine. (MP 3)
S2.G.6 Flexibly, accurately, and efficiently use trigonometric ratios and the Pythagorean Theorem to solve real-world and mathematical problems that can be modeled with right triangles. (MP 2, 4)
S2.G.7 Construct, justify and communicate a clear and reasonable argument that all circles are similar. Connect the underlying structures of similarity to relationships between angles, segments and arcs within circles. (MP 3, 7)
S2.G.8 Describe and represent structures and patterns between inscribed angles, radii, and chords. Relationships include the relationships between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle. (MP 7)
S2.G.9 Describe and represent, using similarity, the definition of a radian as the ratio of arc length to radius. Create a distinction between arc length and arc measure and be able to attend to precisions while relating each of these to radian measure or the formula for the area of a sector. (MP 6, 7)
S2.G.10 Use structures and patterns to work with equations of circles, find different forms of the equations and different defining features of the circle, including the center, radius, and points located on the circle. Use right triangles with the same hypotenuse length, and the Pythagorean Theorem to derive the equation of a circle. (MP 7)

S2.G.11 Attend to precision and reasonableness with respect to area and volume formulas (circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone) by applying informal arguments about how area and volume scale under similarity transformations. When scale factor k is applied to a figure, area scales by k^2 and volume scales by k^3 . (MP 6)

S2.G.12 Attend to precision and reasonableness while using volume formulas for cylinders, pyramids, cones, and spheres to solve problems. (MP 6)

S2.G.13 Derive the equation of a parabola given a focus and directrix. (MP 3)

S2.G.14 Derive the equations of ellipses and hyperbolas given the foci, using the fact that the sum or difference of distances from the foci is constant. (MP 3)

(No Utah Secondary Math II standard)

S2.D.1

Ask statistical questions to investigate linear, exponential, and quadratic associations between two quantitative variables. (MP 1)

S2.D.2

Select the appropriate statistical tools to create a data collection plan. Collect and organize primary data to investigate the association between two variables and make conjectures. For secondary data, determine if data collected are useful to answer the statistical question of interest. (MP 5)

S2.D.3 Analyze data to explore the association between two quantitative variables. Use scatter plots to determine and explain patterns of association. Use technology to find and interpret the correlation coefficient and evaluate the reasonableness and strength of the model used. Determine whether a linear, exponential or quadratic function is the most reasonable model for the data. (MP 6, 8)

S2.D.4 Use the statistical evidence to evaluate results from analyses to answer questions about associations between two quantitative variables. Identify ways to refine investigative questions, data collection, visualization, or analysis. Represent the relationship with a curve of best fit and use the model of the equation to solve problems. Justify statistical reasoning and results to others in a variety of formats including verbal, written, and visual. (MP 3, 8)

(No Utah Secondary Math II standard)

(No Utah Secondary Math II standard)

S2.V.1 Recognize vector quantities as having both magnitude and direction. Represent vector quantities by directed line segments, and use appropriate symbols for vectors and their magnitudes. (MP 7)

S2.V.2 Find and represent the components of a vector by subtracting the coordinates of an initial point from the coordinates of a terminal point. (MP 7)

S2.V.3 Add and subtract vectors and multiply a vector by a scalar. Make sense of the operations by connecting with and without a context. (MP 2)

S2.V.4 Multiply a vector (regarded as a matrix with one column) by a matrix of suitable dimensions to produce another vector. Work with matrices as transformations of vectors. Make sense of this product by connecting it with and without a context. (MP 2)

S2.V.5 Solve real world and mathematical problems involving velocity and other quantities that can be represented by vectors. (MP 2)

Strong alignment

Partial alignment

Different grade level

Weak alignment

Utah only--No Singapore analog

Different Utah Grade
Singapore only

Singapore
Sec 3/4 N5.9 expansion of the product of two linear expressions Sec 3/4 N5.14 factorisation of quadratic expressions of the form $x^2 + px + q$
Sec 3/4 N5.9 expansion of the product of two linear expressions (Sec 2 N5.6 addition and subtraction of linear expressions)
Sec 3/4 N7.8 formulating a quadratic equation in one variable to solve problems Sec 3/4 N7.6 formulating a pair of linear equations in two variables to solve problems
Sec 3/4 N7.7 solving quadratic equations in one variable by use of [quadratic] formula Sec 3/4 N5.14 factorisation of quadratic expressions of the form $x^2 + px + q$
Sec 3/4 N7.5 solving simultaneous linear equations in two variables by: substitution and elimination methods; graphical method
Sec 3/4 N5.11 changing the subject of a simple formula
Sec 3/4 N7.5 solving simultaneous linear equations in two variables
Sec 3/4 N5.10 multiplication and division of simple algebraic fractions
Sec 3/4 N5.13 factorisation of linear expressions of the form $ax + kay$
Sec 3/4 N7.4 solving simple fractional equations that can be reduced to linear equations
Sec 3/4 N6.7 graphs of quadratic functions and their properties <Sec 4>: positive or negative coefficient of x^2; maximum and minimum points; symmetry

Sec 3/4 N6.7 graphs of quadratic functions and their properties <Sec 4> Sec 3/4 N7.3 graphs of linear equations in two variables ($ax + by = c$)
Sec 3/4 N6.6 quadratic functions ($y = ax^2 + bx + c$) <Sec 4> Sec 3/4 N6.7 graphs of quadratic functions and their properties <Sec 4> Sec 3/4 N7.3 graphs of linear equations in two variables ($ax + by = c$)
Sec 3/4 N5.9 expansion of the product of two linear expressions Sec 3/4 N5.14 factorisation of quadratic expressions of the form $x^2 + px + q$
No corresponding Secondary 3/4 standard.
(Sec 2 N6.5 the gradient of a linear graph as the ratio of the vertical change to the horizontal change)
Sec 3/4 N6.6 quadratic functions ($y = ax^2 + bx + c$) <Sec 4> Sec 3/4 N7.8 formulating a quadratic equation in one variable to solve problems
Sec 3/4 N6.6 quadratic functions ($y = ax^2 + bx + c$) <Sec 4> Sec 3/4 N6.7 graphs of quadratic functions and their properties <Sec 4>
Sec 3/4 N1.8 use of index notation for integer powers
Sec 3/4 N1.8 use of index notation for integer powers
No corresponding Secondary 3/4 standard.

No corresponding Secondary 3/4 standard.
No corresponding Secondary 3/4 standard. (Secondary Math II extended topic.)
No corresponding Secondary 3/4 standard. (Secondary Math II extended topic.)
No corresponding Secondary 3/4 standard. (Secondary Math II extended topic.)
Sec 3/4 N1.9 use of standard form $A \times 10^n$, where n is an integer, and $1 \leq A < 10$
No corresponding Secondary 3/4 standard.

Sec 3/4 N2.7 map scales (distance and area)

No corresponding Secondary 3/4 standard.

Sec 3/4 G3.3 use of trigonometric ratios (sine, cosine and tangent) of acute angles to calculate unknown sides and angles in right-angled triangles ...

Sec 3/4 G3.3 use of trigonometric ratios (sine, cosine and tangent) of acute angles ...

Sec 3/4 G3.3 use of trigonometric ratios (sine, cosine and tangent) of acute angles to calculate unknown sides and angles in right-angled triangles (including problems involving angles of elevation and depression)
(Sec 2 G3.1 use of Pythagoras' theorem)

Sec 3/4 G4.12 arc length and sector area as fractions of the circumference and area of a circle

No corresponding Secondary 3/4 standard.

Sec 3/4 G4.12 arc length and sector area as fractions of the circumference and area of a circle

No corresponding Secondary 3/4 standard.

Sec 3/4 G4.10 volume and surface area of pyramid, cone and sphere (Sec 1 G4.2 area and circumference of circle; Sec 2 G4.8 volume and surface area of prism and cylinder)
Sec 3/4 G4.10 volume and surface area of pyramid, cone and sphere (Sec 2 G4.8 volume and surface area of prism and cylinder)
No corresponding Secondary 3/4 standard. (Secondary Math II extended topic.)
No corresponding Secondary 3/4 standard. (Secondary Math II extended topic.)
Sec 3/4 N2.7 map scales (distance and area)
No corresponding Secondary 3/4 standard.
No corresponding Secondary 3/4 standard.
No corresponding Secondary 3/4 standard.
No corresponding Secondary 3/4 standard.
Sec 3/4 S1.8 percentiles, quartiles, range and interquartile range

Sec 3/4 S1.9 analysis and interpretation of cumulative frequency diagrams
No corresponding Secondary 3/4 standard. (Secondary Math II extended topic.)
No corresponding Secondary 3/4 standard. (Secondary Math II extended topic.)
No corresponding Secondary 3/4 standard. (Secondary Math II extended topic.)
No corresponding Secondary 3/4 standard. (Secondary Math II extended topic.)
No corresponding Secondary 3/4 standard. (Secondary Math II extended topic.)

9.3%

30.2%

4.7%

11.6%

44.2%

100.0%

7

2

Alignment	Commentary
Partial	Producing equivalent forms of quadratic expressions via expansion (N5.9) and factorisation (N5.14) overlaps with the standard. Vertex/completing-the-square form is explicitly excluded in G1, and exponential expressions are absent.
Partial	Multiplying two linear expressions to form a quadratic (N5.9) and adding/subtracting linear expressions (Sec 2 N5.6) match the operations; Singapore frames these as expressions rather than as building functions.
Partial	Formulating and solving linear and quadratic equation models matches N7.6 and N7.8 well. Modelling/solving inequalities is not part of the Singapore G1 syllabus.
Strong	Solving quadratic equations by the quadratic formula (N7.7) and by factoring (N5.14) is the core skill and matches directly. Completing the square is explicitly excluded in G1, and quadratic inequalities are not covered, but in general the content connection is strong.
Partial	Singapore's simultaneous-equation work (N7.5) is limited to linear-linear systems; solving a linear-quadratic system is not in the G1 syllabus, though the substitution method is shared.
Different Utah grade	Rearranging formulae is Utah Secondary Math I content (S1.A.3), not Secondary Math II.
Different Utah grade	Solving linear systems is Utah Secondary Math I content (S1.A.5), not Secondary Math II.
Different Utah grade	Operating on algebraic fractions maps to later Utah algebra (Secondary Math III).
Different Utah grade	Linear factoring appears in Utah Grade 7.
Different Utah grade	Operating on algebraic fractions and reducible-to-linear equations map to later Utah algebra (Secondary Math III).
Partial	Maximum/minimum points and symmetry (N6.7) match interpreting key features of quadratic graphs; domain, range, intervals and interval notation are Utah-specific.

Partial	Quadratic (N6.7) and linear (N7.3) graphs match; exponential, absolute-value and piecewise functions are not in the Singapore G1 syllabus.
Partial	Zeros, extreme values and symmetry of quadratics (N6.6–N6.7) and linear graphs (N7.3) are available, but the broader comparison across five function families (incl. exponential, absolute value, piecewise) is Utah-specific.
Partial	Producing equivalent algebraic forms via expansion (N5.9) and factorisation (N5.14) matches; the 'forms of a function' framing and revealing function properties is Utah-specific.
Utah only	Graph transformations (translations/stretchers via k) are not part of the Singapore G1 syllabus.
Partial	Gradient as constant rate of change (Sec 2 N6.5) is related, but average rate of change over an interval for non-linear functions is not in the Singapore G1 syllabus.
Partial	Formulating/modelling quadratic relationships matches N6.6 and N7.8; the explicit/recursive process framing is Utah-specific.
Partial	Interpreting quadratic structure with graph features matches N6.6–N6.7; distinguishing quadratic vs exponential models is limited because exponential functions are not in the Singapore G1 syllabus.
Weak	Index notation for integer powers (N1.8) is present, but extending to rational (fractional) exponents is not in the Singapore G1 syllabus.
Weak	Integer index notation (N1.8) relates loosely, but manipulating radicals and rational exponents according to their properties is not in the Singapore G1 syllabus.
Utah only	Complex numbers and the Fundamental Theorem of Algebra are not in the Singapore G1 syllabus.

Utah only	Complex solutions of quadratics are not in the Singapore G1 syllabus.
Utah only	Complex numbers on the complex plane are not in the Singapore G1 syllabus.
Utah only	Complex numbers on the complex plane are not in the Singapore G1 syllabus.
Utah only	Complex numbers on the complex plane are not in the Singapore G1 syllabus.
Different Utah grade	Standard form (scientific notation) is Utah Grade 8 (8.A.4–8.A.5), not Secondary Math II.
Utah only	The underlying angle/triangle/parallelogram facts appear in Singapore Sec 1–2 (G1.2–G1.4), but formal proof of geometric theorems is not a G1 expectation, and these facts are not part of the Secondary 3/4 content.

Weak	Map scales (N2.7) involve a scale factor, but formal dilation and similarity are Singapore Sec 2 (G2.4–G2.5), not part of the Secondary 3/4 content.
Different grade level	Congruence/similarity (Sec 2 G2.4–G2.5) and Pythagorean Theorem (Sec 2 G3.1) appear earlier; proving the Pythagorean Theorem via similarity is not in the Singapore G1 syllabus.
Strong	Defining and using trigonometric ratios (sine, cosine, tangent) for acute angles in right triangles matches G3.3 directly; the derivation from similarity is Utah's framing of the same content.
Weak	Trigonometric ratios are used in G3.3, but trigonometric identities (complementary-angle relationship, Pythagorean identity, $\tan = \sin/\cos$) are not in the Singapore G1 syllabus.
Strong	Solving right-triangle problems with trigonometric ratios matches G3.3 directly (including elevation/depression), and Pythagoras' theorem is available from Sec 2 G3.1.
Weak	Arc length and sector area (G4.12) involve circle measures, but the 'all circles are similar' argument and circle angle/segment relationships are not in the Singapore G1 syllabus.
Utah only	Circle angle theorems (inscribed/central angles, tangent-radius) are not in the Singapore G1 syllabus.
Partial	Arc length and sector area match G4.12, but radian measure (defining a radian as $\text{arc length} \div \text{radius}$) is not in the Singapore G1 syllabus.
Utah only	The coordinate-geometry equation of a circle is not in the Singapore G1 syllabus.

Partial	The area/volume formulas (circle, cylinder, pyramid, cone) are present across G4.10/G4.8/G4.2; the scaling of area by k^2 and volume by k^3 under similarity is Utah-specific.
Strong	Using volume formulas for cylinders, pyramids, cones and spheres matches G4.10 (with cylinders from Sec 2 G4.8) directly.
Utah only	Conic sections are not in the Singapore G1 syllabus.
Utah only	Conic sections are not in the Singapore G1 syllabus.
Singapore only	Map scales (Utah Grade 7, 7.G.1) are not Secondary Math II standards.
Utah only	Bivariate association between two variables is not in the Singapore G1 syllabus (its Secondary 3/4 statistics is quartiles and cumulative frequency).
Different grade level	Planning bivariate data collection and judging data validity are not part of Secondary 3/4 (basic data collection appears in Sec 1 S1.1).
Utah only	Scatter plots, correlation coefficients and curve-fitting are not in the Singapore G1 syllabus.
Utah only	Bivariate modelling with a curve of best fit is not in the Singapore G1 syllabus.
Different Utah grade	Quartiles/IQR is Utah Secondary Math I content (S1.D.3), not Secondary Math II.

Singapore only	Cumulative frequency diagrams are not Secondary Math II standards.
Utah only	Vectors are not in the Singapore G1 syllabus.
Utah only	Vectors are not in the Singapore G1 syllabus.
Utah only	Vectors are not in the Singapore G1 syllabus.
Utah only	Vectors are not in the Singapore G1 syllabus.
Utah only	Vectors are not in the Singapore G1 syllabus.

Utah strand	Total Utah standards			
		Strong	Partial	Weak
#A standards	5	1	4	0
#F standards	8	0	7	0
#NS standards	7	0	0	2
#G standards	14	3	2	3
#D standards	4	0	0	0
#MV standards	5	0	0	0
Total	43	4	13	5

Different Singapore grade- level	Utah only	Different Utah grade level	Singapore only
0	0	0	0
0	1	0	0
0	5	0	0
1	5	0	1
1	3	0	1
0	5	0	0
2	19	0	2

Domain	Topic
Algebra	Features of Equations & Expressions
Algebra	
Algebra	Modeling with Equations & Inequalities
Algebra	
Functions	Features of Functions & Expressions
Functions	
Functions	
Functions	Modeling with Functions
Functions	

Functions	
Functions	Graphical Representations of Functions
Functions	
Functions	
Geometry	Geometry & Measurement
Geometry	
Geometry	
Data Science	Categorical Data
Data Science	

Data Science	Probability
Data Science	
Data Science	
Data Science	
Data Science	
Data Science	Statistical Reasoning

Data Science

of Utah S3 Standards:
23

Utah
S3.A.1 Interpret polynomial expressions given in factored form or standard form that represent a quantity in terms of a context. Represent polynomial expressions by using technological tools to produce equivalent forms (standard or factored) that reveal different properties, and interpret one or more of their parts as a single entity. (MP 2, 5, 7)
S3.A.4 Solve an equation of the form $f(x)=c$ for a simple function f that has an inverse. Use the attributes of inverse relationships to write inverse expressions. Include linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, logarithmic, square root, and cube root functions. (MP7)
S3.A.2 Create equations and inequalities in one variable to model a context and use them to solve problems. Include equations arising from linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, square root and cube root functions. (MP 3)
S3.A.3 For exponential models, express as a logarithm the solution to $f(t)=ab^{ct} = d$ where a , c , and d are numbers, and the base b is 2 or 10; evaluate the logarithm using technological tools. (MP 2)
S3.F.1 Understand and interpret the features of polynomial, radical or logarithmic functions represented graphically using interval notation and inequalities by applying and removing context. Focus on these key features: domain, range, intervals of increase and/or decrease, location of absolute maximum and/or absolute minimum, intercepts and end behavior. Build graphic models that satisfy given key features. (MP 2, 4)
S3.F.8 Justify that a quantity increasing exponentially eventually exceeds a quantity increasing linearly or quadratically, or (more generally) as a polynomial function. (MP 3)
S3.F.3 Understand and interpret key features (period, midline and amplitude) of sine and cosine functions represented graphically. Build graphic models that satisfy the given key features. (MP 4)
S3.F.2 Build and use models of periodic phenomena with sine and cosine functions that connect real world contexts with amplitude, frequency, and midline. Use structures and patterns to support understanding of a domain extended beyond 0 to 90 degrees, or 0 to $\pi/2$ radians. (MP 4, 7)
S3.F.6 Use the attributes of inverse relationships to build models (tables, graphs, verbal descriptions and equations) for the inverses of linear, exponential, and quadratic functions. (MP 4, 7)

S3.F.7 Determine which function type (polynomial, square root, cubic root, exponential, or trigonometric) best models a given real world context. (MP 4)

S3.F.4 Build graphical representations that show key features of polynomial, square root, cube root, exponential, logarithmic, and trigonometric (sine and cosine) functions expressed symbolically. Select and use appropriate tools to graph, by hand for simple cases, and using technology for more complicated cases. (MP 4, 5)

S3.F.5 Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(x+k)$ by exploring specific values of k for polynomial, square root, cube root, exponential, logarithmic, and trigonometric functions in and out of context. Attend to precision of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are reasonable. (MP 3, 6)

S3.G.1 Use geometric shapes, their measures, and their properties to model real world objects and solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost). Use these models to ask targeted and probing questions with respect to area and volume in context. (MP 1, 2, 4)

S3.G.2 Apply concepts of density based on area and volume in modeling situations. (MP4)

S3.G.3 Attend to precision and reasonableness while using volume formulas for cylinders, pyramids, cones, and spheres to solve problems. (MP 6)

S3.D.1 Describe and represent structures and patterns of data on two categorical variables. Attend to precision and reasonableness when summarizing categorical data in two-way frequency models, and construct, justify, and communicate clear and reasonable arguments about possible associations and trends in the data. (MP 3, 6, 7)

S3.D.2 Build and use probability models including organized lists, venn-diagrams, tree diagrams, and two-way tables to find or estimate probabilities of compound or conditional events. (MP 4)

S3.D.3 Use multiple representations as tools to describe and represent structure to build understanding of the addition rule, $P(A \cup B) = P(A) + P(B) - P(A \cap B)$. Understand the conditional probability of A given B as $P(A \cap B)/P(B)$. Interpret independence of A and B as saying that the conditional probability of B given A is the same as the probability of B. (MP 7)

S3.D.4 Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Select and use physical and/or tech tools to estimate areas under the normal curve. (MP 5)

S3.D.5 Formulate statistical investigative questions that are either summary-based or comparative for surveys, observational studies, or experiments using primary and/or secondary data. Select appropriate statistical tools to develop a plan for data collection and analysis to address these questions. (MP 1, 5)

S3.D.6 Select appropriate statistical tools to implement a data collection plan for primary data related to an investigative question. When using secondary data, assess its validity and relevance to answering the question. Construct an argument justifying the chosen data collection method (survey, observational study or experiment). Understand and apply best practices for designing sample surveys, experiments, and observational studies. (MP 3, 5)

S3.D.7 Attend to precision and reasonableness when summarizing and organizing collected data to answer an investigative question using tables, graphs, and numerical summary statistics. Use models from sample data to estimate population means or proportions. Employ simulation models for random sampling to determine approximate sampling distributions and compute p-values from those distributions. (MP 4, 6)

S3.D.8 Use statistical evidence from the analyses to evaluate results and answer questions. Identify ways to refine investigative questions, data collection, visualization, or analysis. Justify outcomes or estimates of population characteristics, considering their plausibility compared to chance variation, in a variety of formats (verbal, written, visual). Communicate the interpretation of simulated p-values and determine statistical significance. (MP 3, 8)

	Strong alignment
	Partial alignment
Different Singapore grade level	
	Weak alignment
Utah only--No Singapore analog	

Different Utah grade level	
Singapore only	

Singapore
Sec 3/4 N5.9 expansion of the product of two linear expressions Sec 3/4 N5.14 factorisation of quadratic expressions of the form $x^2 + px + q$
H2 1.1 Functions: concepts of function, domain and range; inverse functions and composite functions; conditions for the existence of inverse functions and composite functions; domain restriction to obtain an inverse function; relationship between graphs of a one-to-one function and its inverse
H1 1.2 Equations and inequalities: solving quadratic equations and inequalities in one unknown analytically; solving inequalities by graphical methods; formulating an equation or a system of linear equations from a problem situation
H1 1.1 Exponential and logarithmic functions: functions e^x and $\ln x$ and their graphs; exponential growth and decay; logarithmic
H2 1.2 Graphs and transformations: important characteristics of graphs such as symmetry, intersections with the axes, turning points and asymptotes ...; relating the graphs of $y= f(x) $, $y=f(x)$, and $y=1/f(x)$ to the graph of $y=f(x)$; simple parametric equations and their graphs
H1 1.1 Exponential and logarithmic functions: functions e^x and $\ln x$ and their graphs; exponential growth and decay; logarithmic
H1 1.1 Exponential and logarithmic functions: exponential growth and decay
No corresponding Secondary 3/4, H1 or H2 standard.
No corresponding Secondary 3/4, H1 or H2 standard.
H2 1.1 Functions: concepts of function, domain and range; inverse functions and composite functions; conditions for the existence of inverse functions and composite functions; domain restriction to obtain an inverse function; relationship between graphs of a one-to-one function and its inverse

H1 1.1 Exponential and logarithmic functions: functions e^x and $\ln x$ and their graphs; exponential growth and decay; logarithmic
H1 1.1 Exponential and logarithmic functions: functions e^x and $\ln x$ and their graphs; exponential growth and decay; logarithmic growth; equivalence of $y = e^x$ and $x = \ln y$; laws of logarithms H2 1.2 Graphs and transformations: important characteristics of graphs such as symmetry, intersections with the axes, turning points and asymptotes ...; relating the graphs of $y= f(x)$, H2 1.2 Graphs and transformations: effect of transformations on the graph of $y=f(x)$ as represented by $y=af(x)$, $y=f(x)+a$, $y=f(x+a)$ and $y=f(ax)$ and combinations of these transformations
Sec 3/4 G4.10 volume and surface area of pyramid, cone and sphere (with area/volume problem solving in G4)
No corresponding Secondary 3/4, H1 or H2 standard.
Sec 3/4 G4.10 volume and surface area of pyramid, cone and sphere (Sec 2 G4.8 volume and surface area of prism and cylinder)
No corresponding Secondary 3/4, H1 or H2 standard.
H1 3.1 Probability: use of tables of outcomes, Venn diagrams, tree diagrams ... to calculate probabilities; calculation of conditional probabilities in simple cases; use of: $P(A')=1-P(A)$; $P(A \cup B)=P(A)+P(B)-P(A \cap B)$; $P(A B)=P(A \cap B)/P(B)$

H1 3.1 Probability: use of tables of outcomes, Venn diagrams, tree diagrams ... to calculate probabilities; calculation of conditional probabilities in simple cases; use of: $P(A')=1-P(A)$; $P(A \cup B)=P(A)+P(B)-P(A \cap B)$; $P(A|B)=P(A \cap B)/P(B)$; mutually exclusive events and independent events

H1 3.3 Normal distribution: concept of a normal distribution as an example of a continuous probability model and its mean and variance; use of $N(\mu, \sigma^2)$ as a probability model; standard normal distribution; finding the value of $P(X < x_1)$...; symmetry of the normal curve

H1 3.4 Sampling: concepts of population and simple random sample; concept of the sample mean $\bar{X}$ as a random variable with $E(\bar{X})=\mu$ and $\text{Var}(\bar{X})=\sigma^2/n$; distribution of sample mean from a normal population; use of the Central Limit Theorem to treat sample mean as having normal distribution when the sample size is sufficiently large; use of unbiased estimates of the population mean and variance

H1 3.4 Sampling: concepts of population and simple random sample

H1 3.4 Sampling: concepts of population and simple random sample; concept of the sample mean $\bar{X}$ as a random variable with $E(\bar{X})=\mu$ and $\text{Var}(\bar{X})=\sigma^2/n$; distribution of sample mean from a normal population; use of the Central Limit Theorem to treat sample mean as having normal distribution when the sample size is sufficiently large; use of unbiased estimates of the population mean and variance

H1 3.5 Hypothesis testing: concepts of null hypothesis (H_0) and alternative hypotheses (H_1), test statistic, critical region, critical value, level of significance and p-value; 1-tail and 2-tail tests; interpretation of the results of a hypothesis test in the context of the problem

H1 3.5 Hypothesis testing: concepts of null hypothesis (H_0) and alternative hypotheses (H_1), test statistic, critical region, critical value, level of significance and p-value; 1-tail and 2-tail tests; interpretation of the results of a hypothesis test in the context of the problem

21.7%
39.1%
0.0%
21.7%
17.4%
100.0%

0
0

Alignment
Weak
Partial
Partial
Partial
Partial
Weak
Utah only
Utah only
Partial

Weak
Partial
Strong
Weak
Utah only
Strong
Utah only
Strong

Strong

Strong

Weak

Partial

Partial

Partial

Commentary

Expanding and factorising quadratic expressions (Sec 3/4 N5.9, N5.14) relate loosely, but interpreting the structure of general polynomial expressions in factored/standard form is not a distinct outcome in the Singapore curriculum.

Inverse functions and the graph relationship between a one-to-one function and its inverse match H2 1.1; solving $f(x)=c$ across this specific list of families is Utah's framing.

Creating and solving linear, quadratic and exponential equations/inequalities matches H1 1.2 (and H2 1.3). The cubic, square-root and cube-root families are solved graphically in Singapore rather than treated as a distinct list.

Logarithms as the inverse of exponentials and the equivalence $y = e^x \Leftrightarrow x = \ln y$ (H1 1.1) underpin solving exponential equations; Singapore centers on base e while Utah uses base 2 or 10 with

Graph characteristics — turning points, asymptotes, intercepts, symmetry — match H2 1.2 (and exponential/log graphs in H1 1.1). Interval notation and the polynomial/radical family set differ, and H1 excludes domain/range problems.

Exponential growth/decay is in H1 1.1, but justifying that exponential growth eventually dominates polynomial growth is not an explicit Singapore outcome.

Trigonometric graph features (period, midline, amplitude) are not an explicit outcome in the Singapore syllabi (absent from G1 Sec 3/4 and H1; assumed prior knowledge in H2).

Modelling periodic phenomena with sine/cosine graphs (amplitude, frequency, midline) is not an explicit outcome in the Singapore syllabi: G1 Sec 3/4 has only right-triangle trigonometry, H1 has no trigonometry, and H2 treats trig functions as assumed prior knowledge.

Inverse functions, existence conditions and the function/inverse graph relationship match H2 1.1; the multiple-representation modelling of inverses is Utah's framing.

Singapore applies functions in context (e.g. exponential growth/decay in H1 1.1), but explicitly selecting the best-fitting function type among several families is a Utah-specific expectation.

Graphing exponential/logarithmic functions (H1 1.1) and polynomial/rational functions (H2 1.2) with technology matches well; trigonometric graphs are not explicit in the syllabi.

The transformations $f(x)+k$, $kf(x)$ and $f(x+k)$ correspond directly to H2 1.2's $y=f(x)+a$, $y=af(x)$ and $y=f(x+a)$ and their combinations.

Singapore mensuration solves real-world area/volume problems, but modelling objects and solving design problems (constraints, cost minimisation) is a Utah-specific modelling focus.

Applying density based on area and volume is not in the Singapore syllabi.

Using volume formulas for cylinders, pyramids, cones and spheres matches Sec 3/4 G4.10 (cylinders from Sec 2 G4.8) directly.

Two-way categorical frequency analysis is not an explicit outcome in the Singapore syllabi; H1/H2 statistics is focused on quantitative data (correlation/regression, distributions).

Using tables of outcomes, Venn diagrams and tree diagrams to compute compound and conditional probabilities matches H1 3.1 / H2 6.1 directly.

The addition rule $P(A \cup B) = P(A) + P(B) - P(A \cap B)$, conditional probability $P(A|B) = P(A \cap B) / P(B)$ and independence match H1 3.1 / H2 6.1 essentially verbatim.

Fitting a normal distribution and finding probabilities/percentages under the normal curve matches H1 3.3 / H2 6.3 closely.

Sampling concepts (H1 3.4 / H2 6.4) relate, but formulating investigative questions and designing surveys/experiments/observational studies are Utah-specific.

Simple random sampling matches H1 3.4 / H2 6.4; choosing and justifying among surveys, experiments and observational studies is Utah-specific.

Estimating population means from samples (unbiased estimates, H1 3.4) and computing p-values (H1 3.5 / H2 6.5) match; Utah's simulation-based sampling distributions differ from Singapore's analytic Central-Limit-Theorem approach.

Interpreting significance and p-values in context matches H1 3.5 /
H2 6.5; Utah frames significance through simulated p-values whereas
Singapore uses analytic hypothesis tests.

Utah strand	Total Utah standards			Weak
		Strong	Partial	
#A standards	4	0	3	1
#F standards	8	1	3	2
#G standards	3	1	0	1
#D standards	8	3	3	1
Total	23	5	9	5

Different Singapore grade-level	Utah only	Different Utah grade level	Singapore only
0	0	0	0
0	2	0	0
0	1	0	0
0	1	0	0
0	4	0	0

Course	Strand	Total standards
S1	Interpreting Equations & Their Components	2
S1	Solving Equations	2
S1	Algebraic Modeling	4
S1	Functions Basics	4
S1	Functions and Sequences	3
S1	Comparing Linear and Exponential Functions	4
S1	Quadratic Functions & Expressions	0
S1	Rigid Transformations	5
S1	Geometric Constructions	1
S1	Attributes of Shapes	1
S1	Scale & Measurement	0
S1	Trigonometry & Triangle Similarity	0
S1	Area & Volume	0
S1	Circles	0
S1	Data & Statistical Reasoning	6
S1	Matrix Operations	3
S1	Modeling with Matrices	3
S1	Solving Systems with Matrices	2
S1 Totals		40
S2	Linear & Quadratic Equations & Expressions	5
S2	Algebraic Structure	0
S2	Features of Functions	5
S2	Modeling with Functions	3
S2	Rational Exponents	2
S2	Complex Numbers	5
S2	Scientific Notation	0
S2	Geometric Proofs	1
S2	Similarity & Dilations	1
S2	Trigonometry & Triangle Similarity	4
S2	Circles	4
S2	Area & Volume	2
S2	Cross Sections & Solids of Revolution	2
S2	Scale & Measurement	0
S2	Data & Statistical Reasoning	4
S2	Probability	0
S2	Vectors	5
S2 Totals		43
S3	Features of Equations & Expressions	2

S3	Modeling with Equations & Inequalities	2
S3	Features of Functions & Expressions	3
S3	Modeling with Functions	3
S3	Graphical Representations of Functions	2
S3	Measurement	3
S3	Categorical Data	1
S3	Probability	2
S3	Statistical Reasoning	5
S3 Totals		23
Overall totals		97

Utah standards

Strong	Partial	Weak	Utah standard appears in different Singapore grade level
1	0	1	0
1	1	0	0
0	3	0	0
0	2	2	0
0	1	2	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
2	8	6	2
1	4	0	0
0	0	0	0
0	4	0	0
0	3	0	0
0	0	2	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
2	0	1	1
0	1	1	0
1	1	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
4	13	5	2
0	1	1	0

0	2	0	0
0	1	1	0
0	1	1	0
1	1	0	0
1	0	1	0
0	0	0	0
2	0	0	0
1	3	1	0
5	9	5	0
11	30	16	3

	Singapore standards	
Utah only/no Singapore counterpart	Singapore standard appears in other Utah grade level	Singapore only/no Utah counterpart
0	0	0
0	0	0
1	0	0
0	0	0
0	0	0
3	0	0
0	4	0
5	0	0
0	0	0
0	0	0
0	1	0
0	1	0
0	1	0
0	1	0
5	0	1
3	0	0
3	0	0
2	0	0
22	8	1
0	0	0
0	3	1
1	0	0
0	0	0
0	0	0
5	0	0
0	1	0
1	0	0
0	0	0
0	0	0
2	0	0
0	0	1
2	0	0
0	0	1
3	1	1
0	0	0
5	0	0
19	5	4
0	0	0

0		0	0
1		0	0
1		0	0
0		0	0
1		0	0
1		0	0
0		0	0
0		0	0
4		0	0
37		12	4

Domain
Algebra

Algebra Totals:

Functions

Functions Totals:

Number Systems & Quantitie

Number Systems & Quantitie

Geometry

Geometry Totals:

Data Science

Data Science Totals:

Matrices & Vectors

Matrices & Vectors Totals:

Topic	Course	Total standards
Interpreting Equations & Their Component	S1	2
Solving Equations	S1	2
Algebraic Modeling	S1	4
Linear & Quadratic Equations & Expressions	S2	5
Algebraic Structure	S2	0
Features of Equations & Expressions	S3	2
Modeling with Equations & Inequalities	S3	2
		17
Functions Basics	S1	4
Functions and Sequences	S1	3
Comparing Linear and Exponential Functions	S1	4
Quadratic Functions & Expressions	S1	0
Features of Functions	S2	5
Modeling with Functions	S2	3
Features of Functions & Expressions	S3	3
Modeling with Functions	S3	3
Graphical Representations of Functions	S3	2
		27
Rational Exponents	S2	2
Complex Numbers	S2	5
Scientific Notation	S2	0
s Totals:		7
Rigid Transformations	S1	5
Geometric Constructions	S1	1
Attributes of Shapes	S1	1
Scale & Measurement	S1	0
Trigonometry & Triangle Similarity	S1	0
Area & Volume	S1	0
Circles	S1	0
Geometric Proofs	S2	1
Similarity & Dilations	S2	1
Trigonometry & Triangle Similarity	S2	4
Circles	S2	4
Area & Volume	S2	2
Cross Sections & Solids of Revolution	S2	2
Scale & Measurement	S2	0
Measurement	S3	3
		24

Data & Statistical Reasoning	S1	6
Data & Statistical Reasoning	S2	4
Categorical Data	S3	1
Probability	S3	2
Statistical Reasoning	S3	5
		18
Matrix Operations	S1	3
Modeling with Matrices	S1	3
Solving Systems with Matrices	S1	2
Vectors	S2	5
		13

S1	40
S2	43
S3	23

Utah standards				
Strong	Partial	Weak	Utah standard appears in different Singapore grade level	
1	0	1	0	
1	1	0	0	
0	3	0	0	
1	4	0	0	
0	0	0	0	
0	1	1	0	
0	2	0	0	
3	11	2	0	
0	2	2	0	
0	1	2	0	
0	0	1	0	
0	0	0	0	
0	4	0	0	
0	3	0	0	
0	1	1	0	
0	1	1	0	
1	1	0	0	
1	13	7	0	
0	0	2	0	
0	0	0	0	
0	0	0	0	
0	0	2	0	
0	0	0	0	
0	0	0	0	
0	0	0	0	
0	0	0	0	
0	0	0	0	
0	0	1	0	
2	0	1	1	
0	1	1	0	
1	1	0	0	
0	0	0	0	
0	0	0	0	
1	0	1	0	
4	2	4	3	

0	1	0	0
0	0	0	1
0	0	0	0
2	0	0	0
1	3	1	0
3	4	1	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

	Singapore standards	
Utah only/no Singapore counterpart	Singapore standard appears in other Utah grade level	Singapore only/no Utah counterpart
0	0	0
0	0	0
1	0	0
0	0	0
0	3	1
0	0	0
0	0	0
1	3	1
0	0	0
0	0	0
3	0	0
0	4	0
1	0	0
0	0	0
1	0	0
1	0	0
0	0	0
6	4	0
0	0	0
5	0	0
0	1	0
5	1	0
5	0	0
0	0	0
0	0	0
0	1	0
0	1	0
0	1	0
0	1	0
1	0	0
0	0	0
0	0	0
2	0	0
0	0	1
2	0	0
0	0	1
1	0	0
11	4	2

5	0	1
3	1	1
1	0	0
0	0	0
0	0	0
9	1	2
3	0	0
3	0	0
2	0	0
5	0	0
13	0	0

% of Utah Standards with Strong
or Partial Alignment to
Singapore Same Grade Band
Standards





Review of the Utah Core Standards for Mathematics (UCS-M)

Preliminary Standards Review Findings

Memo

Revised July 27, 2026

In May 2026, WestEd contracted with the Utah State Board of Education (USBE) to conduct an independent, third-party review of the proposed draft of the Utah Core Standards for Mathematics (UCS-M). The overall project is intended to provide a thorough review of the UCS-M for its rigor, clarity, measurability, instructional focus, developmental appropriateness, and the integration of mathematical practices, along with a Benchmark comparison of the UCS-M with high-performing national and international frameworks and standards. This memo summarizes results from the second phase where a detailed standards-level analyses of the UCS-M was completed. A final report will integrate all findings across the entire review along with recommendations and summary of the strengths and weaknesses of the draft UCS-M.



Purpose

The purpose of this memo is to summarize initial findings from the second phase of the Utah Core Mathematics Standards (UCS-M) review. Whereas the first phase focused on benchmarking the Utah standards against selected state, national, and international standards, this phase examined the quality and characteristics of the UCS-M themselves. Specifically, reviewers evaluated individual standards for rigor, measurability, clarity and accessibility, instructional focus, developmental appropriateness, and the integration and alignment of the Utah Mathematical Practices. The purpose of this review was to identify patterns, strengths, and potential areas for refinement within the standards and to provide descriptive evidence regarding the extent to which the standards are clear, measurable, appropriately rigorous, and developmentally coherent.

Scope of Work

This memo summarizes findings from the second phase of the UCS-M standards-level review. Detailed analyses of the UCS-M for its rigor, clarity, measurability, instructional focus, developmental appropriateness, and integration of mathematical practices was undertaken by WestEd analysts in this phase of the study.

This memo should be viewed as an interim, descriptive summary of the UCS-M standards review findings. The analyses presented here are intended to identify patterns and themes that emerged from the standards review and to provide an initial understanding of the characteristics of the standards. Because the review criteria require professional judgment, some variation among reviewers is expected despite the use of common rubrics, double-coding, and quality-control procedures. Consequently, individual ratings should be interpreted with appropriate caution. Greater emphasis should be placed on the broader patterns observed across standards, domains, and grade bands than on any single rating or isolated finding. These patterns will be synthesized in the final report.

The Utah Core Standards for Mathematics (UCS-M)

The draft UCS-M present a PK–12 progression designed to develop conceptual understanding, procedural fluency, and mathematical reasoning. The standards are organized around major mathematical domains, explicitly integrate eight Utah Mathematical Practices throughout the standards, and identify Essential Competencies at each grade level to highlight foundational learning priorities. Distinguishing features of the standards include a strong emphasis on data science, mathematical modeling, and an effort to explicitly integrate mathematical practices into every content standard.



Review Process

To support a comprehensive review of the UCS-M, WestEd developed a structured standards-review process based on a set of rubrics and coding protocols.

Review Materials

WestEd analysts completed a review of 418 standards across 13 grades or courses (see Table 1).

Table 1. Numbers of Standards Reviewed by Grade Level or Course

Grade Level or Course	Number of Standards
Pre-Kindergarten	34*
Kindergarten	22
Grade 1	26
Grade 2	25
Grade 3	27
Grade 4	31
Grade 5	26
Grade 6	26
Grade 7	28
Grade 8	31
Secondary 1	40
Secondary 2	43**
Secondary 3	59***
Total # of Standards	418

Notes: * The Pre-Kindergarten standards are comprised of P3 and P4 sections. These 34 standards include 13 standards for P3 and 21 standards for P4.

** Standard S2.G.1 contains three additional subparts that were independently reviewed for the Instructional Focus and Developmental Appropriateness criteria. These subparts received the same classifications as the primary standard and are therefore not included separately in the summary counts.

*** Secondary III consists of a shared Math for All component (23 standards) and three pathways: Intermediate Algebra (18 standards), Calculus (24 standards), and Data Science (12 standards). The Intermediate Algebra and Calculus pathways share 18 standards, while the Data Science standards are unique. Although all 77 standards were reviewed, summary statistics are based on the 59 unique standards. The accompanying analyst rating sheet identifies duplicated standards, text/code variations, and the standards included in the summary counts.



To avoid duplicating analyses, WestEd conducted the secondary standards review using the Secondary I–III course sequence, as the core standards are shared across the Secondary I–III and AGA pathways. Because the two pathways differ primarily in course organization rather than standards content, findings in this memo are presented using the Secondary I–III sequence, with the exception of the Mathematical Rigor analyses, which are also reported separately for the AGA pathway. Pathway-specific findings for both the Secondary I–III and AGA sequences are available in the accompanying rating sheets and are discussed further in the final report.

Review Criteria

The standards review was guided by a comprehensive set of research-informed review criteria designed to evaluate the quality, coherence, and instructional utility of the UCS-M. Each standard was independently reviewed using common rubrics and coding protocols across eight criteria that were first vetted with USBE. The review criteria included:

- **Measurability:** The extent to which the standard is written to support observable and assessable student performance expectations.
- **Instructional Focus:** Whether the standard addresses the major work of the grade (or widely applicable prerequisite content at the high school level) consistent with expectations across most U.S. mathematics standards.
- **Clarity and Accessibility:** The extent to which the standard is written using clear, precise, and accessible language that can be readily understood by educators and other stakeholders.
- **Depth of Knowledge (DOK):** The level of cognitive demand required by the standard, as characterized using Webb's four-level DOK framework.
- **Mathematical Rigor:** The extent to which the standard emphasizes procedural fluency, conceptual understanding, and/or the application of mathematics in authentic contexts.
- **Developmental Appropriateness:** The extent to which both the mathematical content and the expected level of cognitive demand are appropriate for the intended grade level or course.
- **Mathematical Practice Integration:** The extent to which the Mathematical Practice(s) identified within the standard are meaningfully integrated into the standard's performance expectations.
- **Mathematical Practice Appropriateness:** The extent to which the Mathematical Practice(s) identified within the standard are appropriate for and aligned with the mathematical content of the standard.

The detailed coding rubrics developed and used for this analysis are presented in **Appendix–A**. The review process was designed to provide consistent evidence regarding the quality and characteristics of the standards across grade levels and courses.



Rater Calibration and Consistency

Four WestEd mathematics content experts completed the standards review. Prior to beginning their coding assignments, all reviewers received training on the review criteria and participated in calibration exercises using a common set of example standards to ensure consistent interpretation and application of the review rubrics. Standards requiring additional discussion or clarification were flagged during the coding process and reviewed through WestEd's quality-control procedures. A senior content expert adjudicated all flagged standards to promote the consistent interpretation and application of the review criteria across reviewers, grade levels, and courses.

Analyst 1 served as the primary reviewer for grades PreK–3 and completed secondary reviews of approximately 20 percent of standards in grades 4–8. Analyst 2 served as the primary reviewer for grades 4–8 and completed secondary reviews of approximately 20 percent of standards in grades K–3. Analyst 3 served as the primary reviewer for Secondary I and Secondary II and completed secondary reviews of approximately 20 percent of Secondary III standards. Analyst 4 served as the primary reviewer for Secondary III and completed secondary reviews of approximately 20 percent of Secondary I and Secondary II standards.

Consistency across raters in applying the review criteria was evaluated using percent agreement between reviewers on the subset of standards (approximately 20%) that were independently double-coded. In total, 95 standards across grades PK–8 and 36 standards across the high school courses were independently double-coded by two analysts. Percent agreement for review criteria that were coded on a categorical rubric are summarized in Tables 2 and 3¹.

Overall, agreement between reviewers ranged from moderate to high across the review criteria. The highest levels of agreement were observed for Developmental Appropriateness and the integration and appropriateness of the Mathematical Practices, with percent agreement ranging from 80.6% to 98.9% across grade bands. Instructional Focus demonstrated similarly strong agreement at the PK–8 level (80.0%) and moderate agreement at the high school level (69.4%), reflecting the greater professional judgment required to distinguish among instructional focus classifications. Agreement was comparatively lower for Measurability, Clarity, and Depth of Knowledge (DOK), with percent agreement ranging from 62.1% to 74.7% for grades PK–8 and from 63.9% to 66.7% for high school standards. These criteria require reviewers to make more nuanced judgments in distinguishing among adjacent rating categories and were therefore expected to demonstrate somewhat greater variability across reviewers.

¹ Percent agreement was not calculated for **Mathematical Rigor** because standards could receive multiple rigor classifications. Consequently, a single percent agreement statistic would not accurately represent agreement between reviewers.



Table 2. Percent Agreement Between Two Independent Analysts for PK–8 Standards

Criterion	Number of Double-Coded Standards	Exact Agreement	Percent Agreement
Measurability	95	71	74.7%
Instructional Focus	95	76	80.0%
Clarity	95	59	62.1%
Depth of Knowledge	95	71	74.7%
Developmental Appropriateness	95	89	93.7%
MP Integration	95	88	92.6%
MP Appropriateness	95	94	98.9%

Table 3. Percent Agreement Between Two Independent Analysts for High-School Standards

Criterion	Number of Double-Coded Standards	Exact Agreement	Percent Agreement
Measurability	36	24	66.7%
Instructional Focus	36	25	69.4%
Clarity	36	23	63.9%
Depth of Knowledge	36	23	63.9%
Developmental Appropriateness	36	30	83.3%
MP Integration	36	29	80.6%
MP Appropriateness	36	30	83.3%



Summary of Findings

The following sections provide descriptive summaries of the standards review results for each evaluation criterion. The accompanying tables summarize reviewer ratings across grades and courses and serve as a high-level overview of the detailed analyst rating sheets included with this deliverable. At this stage, the findings are presented descriptively and are not intended to represent an overall evaluation of the standards. Cross-criterion synthesis, interpretation of overarching themes, and recommendations will be provided in the final report following completion of all phases of the review.

Standards Review

Measurability and Specificity

Analysts evaluated the extent to which each standard clearly communicates observable and assessable student performance expectations. Each standard was rated as Measurable and Well Specified (2), Partially Measurable/Well Specified (1), or Not Measurable or Poorly Specified (0). Table 4 summarizes the distribution of ratings by grade level and course.

Overall, the summary presented in Table 4 shows that 55 percent of standards were rated as Measurable and Well Specified, 42 percent were rated as Partially Measurable/Well Specified, and 3 percent (about 1 or 2 standards in some grades) were rated as Not Measurable or Poorly Specified. In total, 188 standards (about 45%) were rated as having reduced measurability and specificity.



Table 4. Measurability and Specificity Ratings of the Standards

Number and Percentage of Standards				
Grade Level or Course	2 – Measurable and Well Specified	1 – Partially Measurable / Well Specified	0 – Not Measurable or Poorly Specified	Total # of Standards
Pre-Kindergarten	11 (32%)	22 (65%)	1 (3%)	34
Kindergarten	16 (73%)	6 (27%)	0 (0%)	22
Grade 1	19 (73%)	7 (27%)	0 (0%)	26
Grade 2	15 (60%)	10 (40%)	0 (0%)	25
Grade 3	11 (41%)	16 (59%)	0 (0%)	27
Grade 4	13 (42%)	17 (55%)	1 (3%)	31
Grade 5	17 (65%)	8 (31%)	1 (4%)	26
Grade 6	16 (62%)	9 (35%)	1 (4%)	26
Grade 7	18 (64%)	10 (36%)	0 (0%)	28
Grade 8	18 (58%)	13 (42%)	0 (0%)	31
Secondary 1	23 (58%)	14 (35%)	3 (8%)	40
Secondary 2	22 (51%)	18 (42%)	3 (7%)	43
Secondary 3*	31 (53%)	24 (41%)	4 (7%)	59
<i>Secondary 3 – Integrated Algebra</i>	22 (54%)	17 (41%)	2 (5%)	41
<i>Secondary 3 – Calculus</i>	27 (57%)	18 (38%)	2 (4%)	47
<i>Secondary 3 – Data Science</i>	15 (43%)	17 (49%)	3 (9%)	35
Total % of Standards	55%	42%	3%	418

Note: *The Secondary 3 standards total includes each unique S3 standard (i.e., 59 standards) once. The pathway rows include both the shared Math for All standards and the pathway-specific standards for Algebra, Calculus, and Data Science and are presented for descriptive purposes only; they are not used to compute the total.



For each standard with partial or no measurability and specificity, analysts selected the flag(s) that most closely described the reason for the reduced rating. Definitions of each of these flags with examples and some discussion is provided in **Appendix–B** (see Table B1).

Table 5 presents the distribution of the measurability and specificity reduction flags, with percentages detailing the percentage of flags across the total standards within the specified grade bands. Because a standard could be flagged for more than one reason of measurability and specificity reduction, the percentages reported in Table 5 are not mutually exclusive and therefore do not sum to 100 percent.

Table 5. Measurability and Specificity Flags of the Standards

Measurability and Specificity Reduction Flags				
Flag	Primary (Pre-K – Grade 5)	Middle (Grades 6 – 8)	Secondary (I, II, III)	Total # of Standards
Too Vague	35 (18%)	14 (16%)	17 (18%)	66
Too Broad	6 (3%)	1 (1%)	8 (6%)	15
Multiple Expectations	17 (9%)	4 (5%)	25 (18%)	46
Non-observable Verb	23 (12%)	11 (13%)	25 (18%)	59
Lacks Performance Expectation	3 (2%)	2 (2%)	0 (0%)	5
Overly Prescriptive	0 (0%)	0 (0%)	0 (0%)	0
Poorly Specified	34 (18%)	7 (8%)	30 (21%)	71
Other	0 (0%)	1 (1%)	0 (0%)	1
Total Standards with Flag	89 (47%)	33 (39%)	66 (46%)	188 (45%)
Total Standards	191	85	142	418

Overall, the summary presented in Table 5 shows that the percentages of standards with measurability and specificity flags across the grade bands totaled approximately 47 percent in primary grades (PK–5), 39 percent for middle grades (6–8), and 46 percent for secondary grades (I–III). Across the grade bands, the most common of these flags included Poorly Specified, Too Vague, Non-observable Verb, and Multiple Expectations. The accompanying analyst rating sheets provide the detailed standard-level ratings, identified measurability issue flags, and reviewer comments supporting these summary results. The final report will synthesize these findings to identify and discuss recurring issues related to the measurability and specificity of the UCS-M.



Instructional Focus—PK–8

For grades PK–8, analysts evaluated whether each standard addressed the major work, supporting work, additional work, or extraneous work of the grade, based on expectations commonly reflected within mathematics standards across most U.S. states. Table 6 summarizes the distribution of instructional focus classifications by grade level for PK–8.

Table 6. Instructional Focus of the Standards—PK–8

Number and Percentage of Standards					
Grade Level or Course	Major Work	Supporting Work	Additional Work	Extraneous Work	Total # of Standards
Pre-Kindergarten	23 (68%)	11 (32%)	0 (0%)	0 (0%)	34
Kindergarten	13 (60%)	6 (27%)	3 (14%)	0 (0%)	22
Grade 1	15 (58%)	7 (27%)	3 (12%)	1 (4%)	26
Grade 2	12 (48%)	10 (40%)	3 (12%)	0 (0%)	25
Grade 3	15 (56%)	10 (37%)	2 (7%)	0 (0%)	27
Grade 4	20 (65%)	5 (16%)	6 (19%)	0 (0%)	31
Grade 5	16 (62%)	4 (15%)	6 (23%)	0 (0%)	26
Grade 6	17 (65%)	5 (19%)	4 (15%)	0 (0%)	26
Grade 7	15 (54%)	13 (46%)	0 (0%)	0 (0%)	28
Grade 8	19 (61%)	11 (35%)	1 (3%)	0 (0%)	31
Total % of Standards	60%	30%	10%	<1%	276

Overall, the summary presented in Table 6 shows that approximately 60 percent of standards in PK–8 were classified as addressing the major work of the grade, 30 percent as appropriate supporting work, 10 percent as additional work, and fewer than 1 percent as extraneous work. The accompanying analyst rating sheets provide the instructional focus classification assigned to each standard, while the final report will synthesize these findings to evaluate the overall balance of major, supporting, and additional work across the PK–8 standards.

Instructional Focus—High School

For the high school standards, analysts evaluated whether each standard represented content that is considered in most states to be a widely applicable prerequisite for college and career readiness, appropriate supporting work, or extraneous or inappropriate content for the course.



Table 7 summarizes the distribution of instructional focus classifications across the secondary mathematics courses.

Table 7. Instructional Focus of the Standards—High School

Number and Percentage of Standards				
Grade Level or Course	Widely Applicable Prerequisite	Appropriate Supporting Work	Extraneous or Inappropriate Work	Total # of Standards
Secondary 1	32 (80%)	8 (20%)	0 (0%)	40
Secondary 2	31 (72%)	12 (28%)	0 (0%)	43
Secondary 3	27 (46%)	32 (54%)	0 (0%)	59
<i>Secondary 3 – Integrated Algebra</i>	22	19	0	41
<i>Secondary 3 – Calculus</i>	25	22	0	47
<i>Secondary 3 – Data Science</i>	11	24	0	35
Total % of Standards	63%	37%	0%	142

Notes: Standard S2.G.1 is reported in three parts within the analyst rating sheets and was reviewed accordingly. To maintain consistency with the total number of unique standards reviewed, these additional classifications are not included in the summary counts presented in this table.

The Secondary 3 standards total includes each unique S3 standard (i.e., 59 standards) once. The pathway rows include both the shared Math for All standards and the pathway-specific standards for Algebra, Calculus, and Data Science and are presented for descriptive purposes only; they are not used to compute the total.

Overall, the summary presented in Table 7 shows that approximately 63 percent of the high school standards were classified as widely applicable prerequisite content and 37 percent as appropriate supporting work, with no standards identified as extraneous or inappropriate for the intended course. The accompanying analyst rating sheets provide the instructional focus classification assigned to each standard, while the final report will synthesize these findings to evaluate the overall balance of foundational and supporting content across the secondary mathematics standards.

Clarity and Accessibility

Analysts evaluated the extent to which each standard was written using clear, mathematically precise, and accessible language appropriate for educators and other stakeholders. Each standard was rated on the following rubric: Clear and Accessible (2), Partially Clear and Accessible (1), or Not Clear and Accessible (0). For standards receiving a rating of 1 or 0, reviewers identified the primary factor(s) contributing to the reduced rating. Table 8 summarizes the distribution of ratings by grade level and course.



Table 8. Clarity and Accessibility Ratings of the Standards

Number and Percentage of Standards				
Grade Level or Course	2 – Clear and Accessible	1 – Partially Clear and Accessible	0 – Not Clear and Accessible	Total # of Standards
Pre-Kindergarten	9 (26%)	25 (74%)	0 (0%)	34
Kindergarten	14 (64%)	8 (36%)	0 (0%)	22
Grade 1	8 (31%)	18 (69%)	0 (0%)	26
Grade 2	11 (44%)	14 (56%)	0 (0%)	25
Grade 3	8 (30%)	19 (70%)	0 (0%)	27
Grade 4	21 (68%)	10 (32%)	0 (0%)	31
Grade 5	20 (77%)	6 (23%)	0 (0%)	26
Grade 6	19 (73%)	7 (27%)	0 (0%)	26
Grade 7	24 (86%)	4 (14%)	0 (0%)	28
Grade 8	25 (81%)	6 (19%)	0 (0%)	31
Secondary 1	27 (68%)	10 (25%)	3 (8%)	40
Secondary 2	29 (67%)	13 (30%)	1 (2%)	43
Secondary 3	35 (59%)	22 (37%)	2 (3%)	59
<i>Secondary 3 – Integrated Algebra</i>	25	16	0	41
<i>Secondary 3 – Calculus</i>	31	16	0	47
<i>Secondary 3 – Data Science</i>	16	17	2	35
Total % of Standards	60%	39%	1%	418

Note: The Secondary 3 standards total includes each unique S3 standard (i.e., 59 standards) once. The pathway rows include both the shared Math for All standards and the pathway-specific standards for Algebra, Calculus, and Data Science and are presented for descriptive purposes only; they are not used to compute the total.

Overall, the summary presented in Table 8 shows that approximately 60 percent of the standards were rated as Clear and Accessible, while 39 percent were rated as Partially Clear and Accessible; only 1 percent of standards received a rating of Not Clear and Accessible.



In total, 168 standards (about 40%) were rated as having reduced clarity and accessibility. For each standard with partial or no clarity and accessibility, analysts selected the flag(s) that most closely described the reason for the reduced rating. Definitions of each of these flags with examples and some discussion is provided in **Appendix-B** (see Table B2).

Table 9 presents the distribution of the clarity and accessibility reduction flags, with percentages detailing the percentage of flags across the total standards within the specified grade bands. Because a standard could be flagged for more than one reason of clarity and accessibility reduction, the percentages reported in Table 9 are not mutually exclusive and therefore do not sum to 100 percent.

Table 9. Clarity and Accessibility Flags of the Standards

Clarity and Accessibility Reduction Flags				
Flag	Primary (Pre-K – Grade 5)	Middle (Grades 6 – 8)	Secondary (I, II, III)	Total # of Standards
Vague/Ambiguous Language	46 (24%)	15 (18%)	23 (16%)	84
Jargon	22 (12%)	0 (0%)	1 (1%)	23
Mathematical Error/ Imprecise Usage of Mathematical Terms	0 (0%)	0 (0%)	3 (2%)	3
Unclear Grammar/Typos	2 (1%)	0 (0%)	15 (11%)	17
Insufficient Guidance to Understand PE	51 (27%)	5 (6%)	30 (21%)	86
Other	6 (3%)	1 (1%)	3 (2%)	10
Total Standards with Flag	100 (52%)	17 (20%)	51 (36%)	168 (40%)
Total Standards	191	85	142	418

Overall, the summary presented in Table 9 shows that the percentages of standards with clarity and accessibility flags across the grade bands totaled approximately 52 percent in primary grades (PK–5), 20 percent for middle grades (6–8), and 36 percent for secondary grades (I–III). Across the grade bands, the most common of these flags included Insufficient Guidance to Understand PE and Vague/Ambiguous Language. The accompanying analyst rating sheets provide the detailed standard-level ratings, identified clarity issue flags, and reviewer comments supporting these summary results. In the final report, these findings will be synthesized to identify and discuss recurring issues related to clarity, accessibility, and the communication of mathematical expectations across the UCS-M.



Depth of Knowledge

Analysts evaluated the cognitive demand of each standard using Webb's Depth of Knowledge (DOK) framework, assigning ratings from DOK 1 (Recall and Reproduction) through DOK 4 (Extended Investigation). Table 10 summarizes the distribution of DOK ratings across grade levels and courses.

Table 10. Depth of Knowledge Ratings of the Standards

Number and Percentage of Standards					
Grade Level or Course	DOK 1	DOK 2	DOK 3	DOK 4	Total # of Standards
Pre-Kindergarten	13 (38%)	17 (50%)	4 (12%)	0 (0%)	34
Kindergarten	6 (27%)	12 (55%)	4 (18%)	0 (0%)	22
Grade 1	4 (15%)	13 (50%)	9 (35%)	0 (0%)	26
Grade 2	2 (8%)	14 (56%)	9 (36%)	0 (0%)	25
Grade 3	3 (11%)	14 (52%)	10 (37%)	0 (0%)	27
Grade 4	0 (0%)	16 (52%)	14 (45%)	1 (3%)	31
Grade 5	0 (0%)	15 (58%)	9 (35%)	2 (8%)	26
Grade 6	0 (0%)	18 (69%)	7 (27%)	1 (4%)	26
Grade 7	0 (0%)	20 (71%)	8 (29%)	0 (0%)	28
Grade 8	0 (0%)	22 (71%)	9 (29%)	0 (0%)	31
Secondary 1	0 (0%)	26 (65%)	14 (35%)	0 (0%)	40
Secondary 2	0 (0%)	31 (72%)	11 (26%)	1 (2%)	43
Secondary 3	0 (0%)	35 (59%)	24 (41%)	0 (0%)	59
Secondary 3 – Integrated Algebra	0 (0%)	26 (63%)	15 (37%)	0 (0%)	41
Secondary 3 – Calculus	0 (0%)	30 (64%)	17 (36%)	0 (0%)	47
Secondary 3 – Data Science	0 (0%)	18 (51%)	17 (49%)	0 (0%)	35
Total % of Standards	7%	61%	31%	1%	418

Note: The Secondary 3 standards total includes each unique S3 standard (i.e., 59 standards) once. The pathway rows include both the shared Math for All standards and the pathway-specific standards for Algebra, Calculus, and Data Science and are presented for descriptive purposes only; they are not used to compute the total.



Overall, the summary presented in Table 10 shows that approximately 60 percent of the standards were rated at DOK 2, 32 percent at DOK 3, 7 percent at DOK 1, and 1 percent at DOK 4, indicating that most standards require students to apply conceptual understanding and engage in strategic reasoning rather than simple recall or extended investigation. Across grade levels, the distribution of DOK ratings reflects a shift from a greater proportion of DOK 1 expectations in the early grades to mostly DOK 2 and DOK 3 expectations in the upper elementary, middle, and high school grades, while DOK 4 expectations occur relatively infrequently. The accompanying analyst rating sheets provide the detailed DOK rating assigned to each standard.

Mathematical Rigor

Analysts evaluated the type(s) of mathematical rigor reflected in each standard, identifying whether the standard emphasized procedural skill and fluency, conceptual understanding, and/or application of mathematics. Tables 11 and 12 summarize the distribution of mathematical rigor classifications by grade level and course.

Table 11. Mathematical Rigor Ratings of the K–8 Standards

Number and Percentage of Standards					
Grade Level or Course	Procedural Skill / Fluency	Conceptual Understanding	Applications	None	Total # of Standards
Pre-Kindergarten	21 (62%)	17 (50%)	8 (24%)	0 (0%)	34
Kindergarten	16 (73%)	13 (59%)	5 (23%)	0 (0%)	22
Grade 1	11 (42%)	17 (65%)	7 (27%)	0 (0%)	26
Grade 2	10 (40%)	16 (64%)	8 (32%)	0 (0%)	25
Grade 3	10 (37%)	20 (74%)	10 (37%)	0 (0%)	27
Grade 4	15 (48%)	22 (71%)	10 (32%)	0 (0%)	31
Grade 5	9 (35%)	23 (88%)	16 (62%)	0 (0%)	26
Grade 6	13 (50%)	14 (54%)	12 (46%)	0 (0%)	26
Grade 7	11 (39%)	17 (61%)	14 (50%)	0 (0%)	28
Grade 8	9 (29%)	22 (71%)	10 (32%)	0 (0%)	31
Total % of Standards	45%	65%	36%	0%	276

Notes: A small number of early-grade standards emphasize recall of foundational mathematical knowledge. These standards were coded as procedural for consistency in the coding framework across grades.



Because a standard could be classified into more than one dimension of rigor, the percentages reported in Tables 11 and 12 are not mutually exclusive and therefore do not sum to 100 percent.

Table 12. Mathematical Rigor Ratings of the High School Standards

Number and Percentage of Standards					
Grade Level or Course	Procedural Skill / Fluency	Conceptual Understanding	Applications	None	Total # of Standards
Secondary 1	18 (45%)	35 (88%)	20 (50%)	0 (0%)	40
Secondary 2	27 (63%)	30 (70%)	11 (26%)	0 (0%)	43
Secondary 3	31 (53%)	40 (68%)	28 (47%)	0 (0%)	59
<i>Secondary 3 – Integrated Algebra</i>	23 (56%)	28 (68%)	17 (42%)	0 (0%)	41
<i>Secondary 3 – Calculus</i>	29 (62%)	30 (64%)	19 (40%)	0 (0%)	47
<i>Secondary 3 – Data Science</i>	11 (31%)	27 (77%)	21 (60%)	0 (0%)	35
<i>Algebra I</i>	8 (20%)	15 (37%)	3 (7%)	0 (0%)	41
<i>Geometry</i>	11 (29%)	13 (34%)	12 (32%)	0 (0%)	38
<i>Algebra II – Integrated Algebra</i>	21 (57%)	28 (76%)	15 (41%)	0 (0%)	37
<i>Algebra II – Calculus</i>	28 (64%)	30 (68%)	17 (39%)	0 (0%)	44
<i>Algebra II – Data Science</i>	10 (31%)	27 (84%)	19 (59%)	0 (0%)	32
Total % of Standards	53%	74%	42%	0%	142

Notes: The Secondary 3 standards total includes each unique S3 standard (i.e., 59 standards) once. The pathway rows include both the shared Math for All standards and the pathway-specific standards for Algebra, Calculus, and Data Science and are presented for descriptive purposes only; they are not used to compute the total. Some of the pathways presented here have repeated standards and therefore, counts for these standards in the colored/highlighted cells are not included in the total – the total only includes the unique S1, S2, and S3 standards without overlap.

Overall across all grades and courses, 68 percent of standards emphasized conceptual understanding, 48 percent emphasized procedural skill and fluency, and 38 percent included opportunities for application of mathematics. Analysts further reviewed the distribution of mathematical rigor across the pathways and AGA standards, noting the following:



- The Secondary III Integrated Algebra and Calculus pathways were distributed similarly to the Algebra II Integrated Algebra and Algebra II Calculus courses.
- The Algebra II Integrated Algebra course was distributed similarly to the Algebra I course, but the Data Science standards in Algebra II (not present in Algebra I) led to a higher percentage of Applications standards.
- Similarly, the Secondary III Data Science Pathway and Algebra II Data Science courses had a higher percentage of Applications standards given the data science focus.
- The Algebra I course contains lots of new mathematical ideas that are appropriately represented, bringing forth a heavy focus on new concepts and a lot of related procedures. Many of the ideas are fairly abstract, but there is some application.
- The Geometry course does not lend itself much to applications, so the only real applications that are showing up are in the Data Science standards.

The accompanying analyst rating sheets provide the detailed rigor classifications assigned to each standard. The final report will synthesize these findings to examine the overall balance of procedural fluency, conceptual understanding, and application across the UCS-M.

Developmental Appropriateness

Analysts evaluated each standard to the degree to which the standard is developmentally appropriate for the grade level or course. Each standard was rated on the following rubric: Developmentally Appropriate (2), Partially Developmentally Appropriate (1), or Not Developmentally Appropriate (0). For standards receiving a rating of 1 or 0, reviewers identified the primary factor(s) contributing to the reduced rating. Table 13 summarizes the distribution of ratings by grade level and course.

Overall, 98 percent of standards were rated as Developmentally Appropriate, while 2 percent were rated as Partially Developmentally Appropriate. For standards receiving a rating of 1 or 0, reviewers identified one or more factors contributing to the reduced rating.

In total, 10 standards (about 2%) were rated as having reduced developmental appropriateness. These were mostly concentrated in the early elementary grades, and were mostly tagged as 'Too early' by the analysts— indicating that the mathematical skill or idea addressed by the standard is more appropriate for a later grade level.



Table 13. Developmental Appropriateness Ratings of the Standards

Number and Percentage of Standards				
Grade Level or Course	2 – Developmentally Appropriate	1 – Partially Developmentally Appropriate	0 – Not Developmentally Appropriate	Total # of Standards
Pre-Kindergarten	31 (91%)	3 (9%)	0 (0%)	34
Kindergarten	20 (91%)	2 (9%)	0 (0%)	22
Grade 1	24 (92%)	2 (8%)	0 (0%)	26
Grade 2	25 (100%)	0 (0%)	0 (0%)	25
Grade 3	24 (89%)	3 (11%)	0 (0%)	27
Grade 4	31 (100%)	0 (0%)	0 (0%)	31
Grade 5	26 (100%)	0 (0%)	0 (0%)	26
Grade 6	26 (100%)	0 (0%)	0 (0%)	26
Grade 7	28 (100%)	0 (0%)	0 (0%)	28
Grade 8	31 (100%)	0 (0%)	0 (0%)	31
Secondary 1	40 (100%)	0 (0%)	0 (0%)	40
Secondary 2	43 (100%)	0 (0%)	0 (0%)	43
Secondary 3	59 (100%)	0 (0%)	0 (0%)	59
<i>Secondary 3 – Integrated Algebra</i>	<i>41 (100%)</i>	<i>0 (0%)</i>	<i>0 (0%)</i>	<i>41</i>
<i>Secondary 3 – Calculus</i>	<i>47 (100%)</i>	<i>0 (0%)</i>	<i>0 (0%)</i>	<i>47</i>
<i>Secondary 3 – Data Science</i>	<i>35 (100%)</i>	<i>0 (0%)</i>	<i>0 (0%)</i>	<i>35</i>
Total % of Standards	98%	2%	0%	418

Notes: Standard S2.G.1 is reported in three parts within the analyst rating sheets. To maintain consistency with the total number of unique standards reviewed, these additional ratings are not included in the summary counts presented in this table. The Secondary 3 standards total includes each unique S3 standard (i.e., 59 standards) once. The pathway rows include both the shared Math for All standards and the pathway-specific standards for Algebra, Calculus, and Data Science and are presented for descriptive purposes only; they are not used to compute the total.



Table 14 presents the distribution of the developmental appropriateness reduction flags, with percentages detailing the percentage of flags across the total standards within the specified grade bands. Because a standard could be flagged for more than one reason of developmental appropriateness reduction, the percentages reported in Table 13 are not mutually exclusive and therefore do not sum to 100 percent.

Table 14. Developmental Appropriateness Flags of the Standards

Developmental Appropriateness Reduction Flags				
Flag	Primary (Pre-K – Grade 5)	Middle (Grades 6 – 8)	Secondary (I, II, III)	Total # of Standards
Prerequisite Missing	0 (0%)	0 (0%)	0 (0%)	0
Too Early	10 (5%)	0 (0%)	0 (0%)	10
Too Late	0 (0%)	0 (0%)	0 (0%)	0
Repeats without Growth	0 (0%)	0 (0%)	0 (0%)	0
Abrupt Jump	0 (0%)	0 (0%)	0 (0%)	0
Total Standards with Flag	10 (5%)	0 (0%)	0 (0%)	10 (2%)
Total Standards	191	85	142	418

Overall, the summary presented in Table 13 shows that the percentages of standards with developmental appropriateness flags across the grade bands totaled approximately 5 percent in primary grades (PK–5), 0 percent for middle grades (6–8), and 0 percent for secondary grades (I–III). Across the grade bands, the flags were composed of Too Early or Other, which analysts further expanded on in the rating sheets. While not flagged for reduced developmental appropriateness, it is worth noting that about 14 percent of standards in SI and SII contain content that is typically covered in later courses for most states – these are considered extended standards, and are intentionally included in the Utah secondary course sequence to promote a pathway for students intending to take calculus after secondary 3. The accompanying analyst rating sheets provide the detailed standard-level ratings, identified developmental issue flags, and reviewer comments supporting these summary results. The final report will synthesize these findings to identify and discuss recurring developmental progression issues, including missing prerequisites, abrupt increases in complexity, unnecessary repetition, and other cross-grade patterns that may inform future revisions to the UCS-M.

Mathematical Practice Integration

Analysts evaluated the extent to which the Utah Mathematical Practice(s) explicitly identified within each standard were meaningfully integrated into the standard's performance expectations. Each standard was rated as All Named Practices Integrated (2), Some Named



Practices Integrated (1), or No Named Practices Integrated (0). Table 15 summarizes the distribution of Mathematical Practice Integration ratings by grade level and course.

Table 15. Mathematical Practice Integration Ratings of the Standards

Number and Percentage of Standards				
Grade Level or Course	2 – All Named Practices Integrated	1 – Any Named Practices Integrated	0 – No Practices Integrated	Total # of Standards
Pre-Kindergarten	32 (94%)	1 (3%)	1 (3%)	34
Kindergarten	22 (100%)	0 (0%)	0 (0%)	22
Grade 1	26 (100%)	0 (0%)	0 (0%)	26
Grade 2	25 (100%)	0 (0%)	0 (0%)	25
Grade 3	27 (100%)	0 (0%)	0 (0%)	27
Grade 4	28 (90%)	3 (10%)	0 (0%)	31
Grade 5	26 (100%)	0 (0%)	0 (0%)	26
Grade 6	25 (96%)	0 (0%)	1 (4%)	26
Grade 7	26 (93%)	1 (4%)	1 (4%)	28
Grade 8	29 (94%)	2 (6%)	0 (0%)	31
Secondary 1	32 (80%)	4 (10%)	4 (10%)	40
Secondary 2	33 (77%)	5 (12%)	5 (12%)	43
Secondary 3	47 (80%)	3 (5%)	9 (15%)	59
<i>Secondary 3 – Integrated Algebra</i>	32 (78%)	3 (7%)	6 (15%)	41
<i>Secondary 3 – Calculus</i>	38 (81%)	3 (6%)	6 (13%)	47
<i>Secondary 3 – Data Science</i>	27 (77%)	1 (3%)	7 (20%)	35
Total % of Standards	90%	5%	5%	418

Note: The Secondary 3 standards total includes each unique S3 standard (i.e., 59 standards) once. The pathway rows include both the shared Math for All standards and the pathway-specific standards for Algebra, Calculus, and Data Science and are presented for descriptive purposes only; they are not used to compute the total.



Overall, 90 percent of standards were rated as having All Named Practices Integrated, while 5 percent were rated as having Any Named Practices Integrated and 5 percent were rated as having No Named Practices Integrated. The accompanying analyst rating sheets provide the detailed standard-level ratings and reviewer comments supporting these summary results. The final report will synthesize these findings to identify and discuss recurring patterns in the integration of the Utah Mathematical Practices and opportunities to strengthen their alignment with the intended performance expectations across the standards.

Mathematical Practice Appropriateness / Alignment

Analysts evaluated whether the Utah Mathematical Practice(s) identified within each standard were appropriate for and aligned with the mathematical content of the standard. Each standard was rated as All Named Practices Appropriate (2), Some Named Practices Appropriate (1), or No Named Practices Appropriate (0). Reviewers also identified additional Mathematical Practice(s), where applicable, that would better align with the content or performance expectations of the standard. Table 16 summarizes the distribution of ratings by grade level and course.

Overall, the summary presented in Table 16 shows that 95 percent of standards were rated as having All Named Practices Appropriate, while 2 percent were rated as having Any Named Practices Appropriate and 2 percent were rated as having No Practices Appropriate. The accompanying analyst rating sheets provide the detailed standard-level ratings, identified recommendations for additional Mathematical Practices where applicable, and reviewer comments supporting these summary results. The final report will synthesize these findings to examine and discuss patterns in the appropriateness of the Mathematical Practices and identify opportunities to strengthen alignment between the identified practices and the mathematical content of the standards.



Table 16. Mathematical Practice Appropriateness / Alignment Ratings of the Standards

Number and Percentage of Standards				
Grade Level or Course	2 – All Named Practices Appropriate	1 – Any Named Practices Appropriate	0 – No Practices Appropriate	Total # of Standards
Pre-Kindergarten	32 (94%)	1 (3%)	1 (3%)	34
Kindergarten	22 (100%)	0 (0%)	0 (0%)	22
Grade 1	26 (100%)	0 (0%)	0 (0%)	26
Grade 2	25 (100%)	0 (0%)	0 (0%)	25
Grade 3	27 (100%)	0 (0%)	0 (0%)	27
Grade 4	31 (100%)	0 (0%)	0 (0%)	31
Grade 5	26 (100%)	0 (0%)	0 (0%)	26
Grade 6	25 (96%)	1 (4%)	0 (0%)	26
Grade 7	27 (96%)	0 (0%)	1 (4%)	28
Grade 8	31 (100%)	0 (0%)	0 (0%)	31
Secondary 1	37 (93%)	1 (3%)	2 (5%)	40
Secondary 2	37 (86%)	4 (9%)	2 (5%)	43
Secondary 3	53 (90%)	2 (3%)	4 (7%)	59
<i>Secondary 3 – Integrated Algebra</i>	38 (93%)	1 (2%)	2 (5%)	41
<i>Secondary 3 – Calculus</i>	44 (94%)	2 (4%)	1 (2%)	47
<i>Secondary 3 – Data Science</i>	31 (89%)	0 (0%)	4 (11%)	35
Total % of Standards	95%	2%	2%	418

Note: The Secondary 3 standards total includes each unique S3 standard (i.e., 59 standards) once. The pathway rows include both the shared Math for All standards and the pathway-specific standards for Algebra, Calculus, and Data Science and are presented for descriptive purposes only; they are not used to compute the total.



Overall Summary

This memo presents the second phase of WestEd's review of the UCS-M and provides descriptive summaries of the standards-level review across the evaluation criteria of measurability, instructional focus, clarity and accessibility, depth of knowledge, mathematical rigor, developmental appropriateness, and the integration and appropriateness of the Utah Mathematical Practices. The accompanying summary tables and analyst rating sheets document the results of the independent standards reviews and provide the detailed evidence supporting the ratings assigned to each standard.

This memo is intended to serve as a technical summary of the review findings rather than a comprehensive evaluation of the standards. Although the analyses presented here identify the distribution of ratings across the review criteria, they do not synthesize the broader themes, recurring issues, or relationships among criteria that emerged during the review process. Because the evaluation of individual standards necessarily involves professional judgment, modest variation among reviewers is expected despite the use of common review rubrics, calibration exercises, double-coding, and quality-control procedures. Accordingly, individual ratings should be interpreted within the context of the complete body of evidence rather than in isolation.

The final report will integrate findings from both phases of the project: the benchmarking analyses presented in Deliverable 1 and the standards-quality review presented in this memo. Together, they will provide a comprehensive evaluation of the UCS-M. Rather than simply summarizing individual ratings, the final report will synthesize recurring patterns observed across standards, grade levels, and review criteria; identify cross-cutting strengths and opportunities for refinement; examine common issues related to standards language, organization, progression, and the implementation of the Utah Mathematical Practices; and provide evidence-based observations and recommendations for USBE's consideration. For this reason, this memo should be viewed as an interim technical deliverable, and any decisions regarding potential revisions to the standards should be informed by the integrated findings and recommendations presented in the final report.



Appendix – A

See attachment **Appendix-A_Utah Standards Review Criteria Rubrics**

Appendix – B

Table B1. Definitions of the Tags Used for Measurability Ratings Less Than 2 With Examples

Tag	Definition	Example	Discussion
Too vague	The standard uses vague language, making it difficult to tell what mathematical performance a teacher or assessor should look for.	P3.D.2 —With prompting and support, collect and sort data or objects by attribute (color, shape, size, etc), and build data models. (MP 4) 4.MG.2 —Draw points, lines, line segments, rays, angles (right, acute, and obtuse), and perpendicular and parallel lines. Describe these structures and their relationships within two-dimensional figures. (MP 7) 7.NS.3 —Extend previous understanding of multiplication and division to multiply and divide rational numbers in and out of context. (MP 2)	Both "With prompting and support" and "Build data models" are too vague for a teacher or assessor to know what is expected. "Describe these structures and their relationships within two-dimensional figures" is likely too vague for a teacher or assessor to understand the performance expectation. This standard is vague in terms of what is actually expected of students; it is not clear what understanding is to be extended and now.
Poorly specified	The standard is not specific enough about what a student should be able to do for a teacher or assessor to confidently determine whether proficiency has been met.	1.MG.2 —Construct a reasonable argument about the order of three objects sorted by length. Compare the lengths of two objects indirectly using a third object and justify the results. (MP 3) 6.NS.7 —Build and use models to develop the definition of absolute value. Work with absolute value in and out of context. (MP 2, 4)	Stakeholders will need to make an inference about what is "reasonable" and perhaps even what counts as an argument for this grade level. "Work with" is not specific enough for a teacher or assessor to know what kind of mathematical performance would constitute proficiency with the standard.



		S3.F.1—Understand and interpret the features of polynomial, radical or logarithmic functions represented graphically using interval notation and inequalities by applying and removing context. Focus on these key features: domain, range, intervals of increase and/or decrease, location of absolute maximum and/or absolute minimum, intercepts and end behavior. Build graphic models that satisfy given key features. (MP 2, 4)	"Understand and interpret the features of ... functions ... by applying and removing context" is also poorly specified. It is not clear what this means in terms of observable behavior an assessor should be looking for.
Too broad	The standard represents a wide range of possible observable behavior, requiring a teacher or assessor to make their own decisions about what a standard is asking students to do.	6.RP.1—Clearly communicate understanding of ratio relationships by using ratio language. (MP 3) S1.D.5—Analyze and use statistical evidence to evaluate results and answer statistical investigative questions about the differences between two or more population parameters. Identify ways to refine the question, data collection, visualization, or analysis. (MP 8)	There are many things a student could understand about ratio relationships; the standard does not make clear what about ratio relationships student should understand. "Identify ways to refine the question, data collection, visualization, or analysis" is extremely broad.
Multiple expectations	The standard includes multiple distinct performance expectations that would be difficult or impossible to assess with a single performance; it is possible that a student could be proficient in one PE but not the other(s), making it difficult to make a determination as to whether a student has demonstrated proficiency with the standard.	K.MG.2—Describe structures of two-dimensional and three-dimensional shapes, including names and attributes, regardless of size or orientation. Describe their relative positions in the environment. (MP 7) 5.NF.5—Build and use models that extend understanding of division to divide unit fractions by whole numbers and whole numbers by unit fractions. Solve problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions using real world contexts and equations. Make conjectures about the relationship between multiplication and division when operating with fractions and evaluate the results. (MP 2, 4, 8) S2.F.8—Communicate clear and reasonable arguments to distinguish between situations that can be modeled with quadratic, exponential, and linear functions. Interpret the structure of quadratic functions written in different forms with the features of their graphs. (MP 3, 7)	Describing the structures of shapes is a different skill than describing shapes' relative positions in an environment. These two skills should be assessed by separate tasks. This standard includes at least three distinct performance expectations. Though there are relationships between these PEs, it is unlikely that all three could be effectively assessed by a single performance item. Communicating clear and reasonable arguments about modeling with a variety of function families is a different skill than interpreting the structure of quadratic functions written in different forms. These are separate performance expectations.



Non-observable verb	The standard does not clearly describe an observable behavior and may instead refer to internal, cognitive processes (e.g., “understand,” “recognize,” “attend to,” “make sense of”) that cannot be directly observed.	K.MG.5—Recognize that clocks are tools used to measure and show time. Connect the use of clocks to daily routines and events. Recognize structures and features of clocks. (MP 7) S1.M.2—Use matrices to represent and manipulate data (e.g., to represent payoffs or incidences relationships in a network). Multiply matrices by scalars to produce new matrices and make sense of this product by connecting it with and without a context. (MP 2, 4) S1.G.3— Select and use tools to strategically perform rigid transformations. Attend to precision when identifying and describing the transformation or the sequence of transformations to determine whether or not two figures are congruent. Understand that the image created from a rigid transformation or a sequence of rigid transformations is congruent to the pre-image. (MP 5, 6)	The word “recognize” is an internal cognitive process that is not outwardly observable and thus cannot be used to assess proficiency with mathematical content. "Make sense" is not observable; it is not clear what behavior teachers would be looking for to know that students had made sense of scalar products. (It is also not clear grammatically what is meant by "connecting it with and without a context," so not clear how this would be measured.) "Attend to precision" and "understand" are not observable behaviors. The standard does not describe what outward, observable behaviors students should engage in in order to assess proficiency.
Lacks performance expectation	The standard does not contain a performance expectation. It may instead state mathematical facts, or focus on the <i>processes</i> of teaching and learning or instructional activities, rather than the <i>results</i> of teaching and learning.	—None—	
Overly prescriptive	The standard is overly specific/atomistic that it fails to capture the meaningful learning that undergirds the skill.	—None—	
Other	The standard has reduced measurability and specificity for a different reason (described in notes).	—None—	



Table B2. Definitions of the Tags Used for Clarity Ratings Less Than 2 With Examples

Tag	Definition	Example	Discussion
Vague/ ambiguous language	The standard contains language that is confusing or not specific enough for the reader to understand what student performance the standard intends.	3.D.2—Select and use tools strategically to collect and organize data. Build data visualizations using scales of 2s, 5s, and 10s. Represent a data set with three or more categories. Ask questions to consider a given data set. Identify data as quantitative or categorical. (MP 1, 5) 7.NS.1—"Describe and represent structures, patterns and relationships to define rational numbers" is vague in a way that makes the PE unclear and thus not possible to measure. It is not clear what observable behavior the teacher/assessor would be looking for. "Flexibly" is also high-inference/subjective. S1.G.2—Construct and clearly communicate definitions of the rigid transformations to show that these transformations are functions that take points in the plane as inputs and give corresponding points as outputs. (MP 3)	"Strategically" and "ask questions to consider a data set" are vague; a teacher or assessor would need to use their judgment to determine whether a student is using tools strategically. The standard also does not make clear what types of questions a student would need to be asking to meet the standard. "Describe and represent structures, patterns and relationships to define rational numbers" is vague in a way that makes the performance expectation unclear. It is not clear what observable behavior the teacher/assessor would be looking for. "Flexibly" is also high-inference and requires the teacher to make a judgment call. It is not clear what is meant by "construct definitions of the rigid transformations," so it is hard to know the standard expects of students.
Jargon	The standard contains language that is unnecessarily difficult for important interest holders (such as parents) to understand and could be stated more plainly without losing mathematical precision, or could be clarified with an example.	1.OA.6—Add and subtract with sums and minuends less than or equal to 20. Connect and justify different strategies for addition and subtraction. (MP 3) 2.NBT.3—Read three-digit whole numbers and represent the place value structure in those numbers using numerals, base 10 word form, and expanded form. (MP 7) 3.OA.6—Multiply and divide flexibly, accurately, and efficiently, with products, dividends, and divisors up to and including 100, and quotients up to and including 10. Know from memory all products of two one-digit numbers. (MP 6)	While the term "minuends" is appropriate and precise, it is also technical and may not be familiar to parents or all educators. The phrases "base 10 word form" and "expanded form" are somewhat technical and may not be familiar to all users, particularly parents. While appropriate and precise, technical terms like "dividends" and "divisors" may not be accessible to all users, especially parents.
Mathematical error/ imprecise usage of mathematical term(s)	The standard contains a mathematical error and/or uses mathematical terms incorrectly or imprecisely.	S1.A.2/A1.CE.5—Build symbolic models of linear equations and inequalities, and use them to solve problems in and out of context. (MP 3, 4) S3.D.7/A2.D.7—Attend to precision and reasonableness when summarizing and organizing collected data to	"Build symbolic models of linear equations and inequalities" is redundant; linear equations and inequalities <i>are</i> the symbolic models of situations involving linear relationships.



		answer an investigative question using tables, graphs, and numerical summary statistics. Use models from sample data to estimate population means or proportions. Employ simulation models for random sampling to determine approximate sampling distributions and compute p-values from those distributions. (MP 4, 6)	Looking at the second sentence, the original wording from CCSS is: "Use data from a sample survey to estimate a population mean or proportion." The revised language ("Use models from sample data") is mathematically imprecise; one can use sample data to create a model which can then be used to estimate a population mean, but the current wording skips over this step, implying that the sample data is itself the model, which is inaccurate.
Unclear grammar/typo(s)	The standard contains grammar errors and/or typos that make it difficult to understand.	1.MG.3—Tell and write time in hours and half-hours using analog and digital clocks, attending to precision and reasonableness. (MP 63) 5.D.1--Determine a topic question and ask investigative questions that will lead to collecting, analyzing, and interpreting data with up to four variables. Ask questions to identify potential sources of bias in data collection, representation, and interpretation. (MP 1) S1.A.4/A1.REI.1—Solve linear equations and inequalities using algebraic tools, starting from the assumption that a solution exists. Communicate clear arguments for equations that do not have one unique solution and justify the results. Interpret solutions and use both inequality and interval notation. (MP 3, 5)	Typo; "MP 63" should most likely read "MP 6, 3." Typo; "representation" is misspelled. "Communicate clear arguments for equations" does not make grammatical or mathematical sense, and is also redundant with "justify the results." We suspect the intent is something like "Identify linear equations and inequalities that do not have one unique solution and justify the claim."
Insufficient guidance to understand PE	The standard lacks sufficient guidance regarding the relevant content knowledge and math practices, making the performance expectation (PE) difficult to understand.	K.CC.2— Accurately count forward from a given number between 1 and 100. Attend to the counting structure. (MP 6, 7) 4.NBT.5—Use efficient algorithms to determine sums and differences of multi-digit whole numbers in real-world contexts and equations flexibly, accurately, and efficiently. Determine if sums and differences are reasonable. (MP 2, 6) S2.NS.1/A1.NS.1—Extend understanding of the structure of integer exponent properties to rational exponents. (MP 8)	The phrase "attend to the counting structure" is abstract and does not clearly describe what students should notice or do (e.g., patterns in tens and ones). The terms "flexibly, accurately, and efficiently" are somewhat abstract and open to interpretation without clear definitions or examples. Because the standard is poorly specified, the PE is not clear. It is not clear what understanding of the structure of integer exponent properties the standard is referring to, or how it should be extended.
Other	The standard has reduced clarity and accessibility for a different reason (described in notes).	S3.D.7/A2.D.7 —Attend to precision and reasonableness when summarizing and organizing collected data to answer an investigative question using tables, graphs, and numerical summary statistics. Use models from sample	"Attend to precision and reasonableness when summarizing and organizing collected data to answer an investigative question using tables, graphs, and numerical



		data to estimate population means or proportions. Employ simulation models for random sampling to determine approximate sampling distributions and compute p-values from those distributions. (MP 4, 6) 4.NF.6—Build and use models to express a fraction with denominator of 10 as an equivalent fraction with denominator of 100, and use this technique to add two fractions with respective denominators of 10 and 100. (MP 4) 2.OA.1—Build and use models to solve one-step addition and subtraction story problems with sums and minuends less than or equal to 100, and two-step addition and subtraction story problems with sums and minuends less than or equal to 20. Add or remove story context to solve problem type situations with unknowns in all positions while attending to the meaning of the equal sign. (MP 2, 4)	summary statistics" is ungainly and difficult for the reader to parse. The language "Build and use models" makes it difficult to understand what the standard is asking students to do. Without this language, the performance expectation is clear This standard is quite long and dense, combining many expectations (one-step, two-step, modeling, context, unknowns, equal sign). The density and wordiness makes the exact performance expectations for the standard hard to understand.
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Criterion	Coding structure	Analyst instruction	Score guidance / examples
Measurability & Specificity Score	0-2	Assess whether the standards are written in a way that allows for the development of clear assessment items.	2 = measurable & well specified; 1 = partially measurable / well specified; and 0 = not measurable or poorly specified.
Measurability Issue Flag	Select issue(s) if score < 2	Flag the primary reason(s) measurability is reduced.	Too vague; Too broad; Multiple expectations; Non-observable verb; Lacks performance expectation; Overly prescriptive; Poorly specified; Other.
Instructional Focus Tag	K-8: Major Work, Supporting Work, Additional Work, Potentially Extraneous HS: Widely applicable prerequisite, Appropriate supporting work, Extraneous or inappropriate work	PK-8: Identify whether the standard addresses the "major work" of the grade; supporting work; additional work; or extraneous content. HS: Identify whether the standard addresses "widely applicable prerequisite; appropriate supporting work; or extraneous work for the grade level/course. Use concept maps, benchmark expectations, and grade-level priorities.	PK-8: Classify as Major work, Supporting work, Additional work, or Extraneous work; Use Extraneous when content seems misplaced, unnecessary, or outside expected grade/course focus. Explain in notes. HS: Classify as Widely applicable prerequisite, Appropriate supporting work, or Extraneous or inappropriate work. Explain in notes.
Clarity & Accessibility Score	0-2	Score whether the terminology is simple, concise, mathematically precise, and still accessible to educators and parents.	2 = clear and accessible; 1 = partially clear and accessible; 0 = not clear and accessible.
Clarity & Accessibility Issue Flag	Select issue(s) if score < 2	Flag the primary reason(s) clarity and accessibility are reduced.	Vague/ambiguous language; Jargon; Mathematical error/imprecise usage of mathematical term(s); Unclear grammar/typo(s); Insufficient guidance to understand PE; Other.
DOK Level	1, 2, 3, 4, Not applicable	Code the highest cognitive complexity clearly required by the standard. Use Webb's DOK, not perceived difficulty.	DOK 1 = recall/reproduction/rote procedures; DOK 2 = skills/concepts; DOK 3 = strategic reasoning/evidence/justification; DOK 4 = extended investigation/synthesis over time; Not applicable = no clear performance expectation.
Mathematical Rigor	Select all that apply: Procedural skill/fluency; Conceptual understanding; and/or Applications; or None	Identify whether each standard addresses mathematical skills and procedures; conceptual understanding of a mathematical idea; and/or applications of a mathematical skill/procedure.	A standard does not need every component. Balance is judged later across the grade/course. Classify as Procedural skill/fluency; Conceptual understanding; and/or Applications; or None
Developmental Appropriateness Score	0-2	Score whether each standard is developmentally appropriate for the grade level/course.	2 = developmentally appropriate; 1 = partially developmentally appropriate; 0 = not developmentally appropriate.
Developmental Appropriateness Flag	Select issue(s) if score < 2	Do not score at the standard level. Flag possible issues for later progression review.	Prerequisite missing; Too early; Too late; Repeats without growth; Abrupt jump; Other.
Math Practice Integration	0-2	Determine whether or not the MP(s) named in each standard are meaningfully integrated into the standard's performance expectation(s). If 1 or 0, identify the MP(s) that are the best fit for the standard.	2, All named practices integrated = All practices explicitly named in the standard are meaningfully integrated into the standard and aligned with its performance expectations; 1, Any named practices integrated = At least one of the practices explicitly named in the standard is meaningfully integrated into the standard and aligned with its performance expectations, but at least one is not; 0, No practices integrated = None of the practices explicitly named in the standard are meaningfully integrated into the standard and aligned with its performance expectations.
Math Practice Appropriateness	0-2	Determine whether or not the MP(s) named in each standard are appropriate to the mathematical content of the standard. If 1 or 0, identify the MP(s) that are the best fit for the standard.	2, All named practices appropriate = All practices explicitly named in the standard are appropriate to and aligned to the mathematical content of the standard; 1, Any named practices appropriate = At least one of the practices explicitly named in the standard is appropriate to and aligned to the mathematical content of the standard, but at least one is not; 0, No practices appropriate = None of the practices explicitly named in the standard are appropriate to and aligned to the mathematical content of the standard.
Math Practice Alignment Tags	Grade-specific Utah MPs	If misaligned/integrated or partially aligned/integrated, list the mathematical practice(s) that are the best fit for the standard.	For any MP(s) not named in the standard that would be better integrated or aligned with the content or performance expectations in the standard, provide suggestion for a more closely aligned MP(s). Select None if N/A.
QC/Review Flag	Optional status flag	Use to mark standards requiring secondary analyst or senior review. Each one is marked as a Y/N.	Potential rationales for additional review/QC: Multi-part standard; Uncertain rating; Possible gap; Possible redundancy; Other. Use the Analyst Notes to describe.
Analyst Notes	Free text	Explain any non-obvious rating or flag. Notes should be concise but evidence-based.	Include specific phrase in the standard that drove the rating whenever possible.
QC/Consensus Notes	Free text	Reserved for project lead or consensus reviewer after double-coding/calibration.	Do not overwrite analyst notes.

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Domain	Standard ID
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Operations and Algebraic Thinking (OA)	2. OA. 1
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Operations and Algebraic Thinking (OA)	2. OA. 2
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Operations and Algebraic Thinking (OA)	2. OA. 3
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Operations and Algebraic Thinking (OA)	2. OA. 4
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Number and Operations in Base Ten (NBT)	2. NBT. 1
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Number and Operations in Base Ten (NBT)	2. NBT. 2
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Number and Operations in Base Ten (NBT)	2. NBT. 3
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Number and Operations in Base Ten (NBT)	2. NBT. 4
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Number and Operations in Base Ten (NBT)	2. NBT. 5
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Number and Operations in Base Ten (NBT)	2. NBT. 6
Number and Operations in Base Ten (NBT)	2. NBT. 7
Measurement and Geometry (MG)	2. MG. 1
Measurement and Geometry (MG)	2. MG. 2
Measurement and Geometry (MG)	2. MG. 3
Measurement and Geometry (MG)	2. MG. 4
Measurement and Geometry (MG)	2. MG. 5
Measurement and Geometry (MG)	2. MG. 6
Measurement and Geometry (MG)	2. MG. 7
Measurement and Geometry (MG)	2. MG. 8
Measurement and Geometry (MG)	2. MG. 9
Measurement and Geometry (MG)	2. MG. 10

Data Science (D)

2. D. 1

Data Science (D)

2. D. 2

Data Science (D)

2. D. 3

Data Science (D)

2.D.4

Standard Text	Measurability Score (0-2)	Measurability Issue Flag
<i>Build and use models</i> to solve one-step addition and subtraction story problems with sums and minuends less than or equal to 100, and two-step addition and subtraction story problems with sums and minuends less than or equal to 20. <i>Add or remove story context</i> to solve problem type situations with unknowns in all positions while attending to the meaning of the equal sign. (MP 2, 4)	1—Partially measurable / well specified	Non-observable verb
Use strategies and properties to add and subtract <i>flexibly, accurately, and efficiently</i> with sums and minuends less than or equal to 20. Know from memory all sums of two one-digit numbers. (MP 6)	1—Partially measurable / well specified	Poorly specified; Too broad
<i>Describe and represent structures and patterns</i> to determine if a group of up to 20 objects has an odd or even number of items by pairing them or counting by twos. (MP 7)	2—Measurable & well specified	
<i>Build and use models</i> involving repeated addition to determine the total number of objects in rectangular arrays with up to 5 rows and up to 5 columns. <i>Describe and represent the</i> show place value understanding by bundling ten ^{Make an} 10s to make a "hundred." Use a variety of <i>models</i> to represent the amount of hundreds, tens, and ones in a three-digit number. Identify the number of hundreds, tens, and ones in a three-	2—Measurable & well specified	
Count within 1,000, <i>making conjectures</i> about counting patterns; Skip-count by twos, fives, tens, and hundreds. (MP 8)	2—Measurable & well specified	
Read three-digit whole numbers and <i>represent the place value structure in</i> those numbers using numerals, base 10 word form, and expanded form. (MP 7)	2—Measurable & well specified	
Compare two three-digit numbers using models and/or place value understanding. <i>Represent the relationship between the two numbers using comparison symbols <, =, and >.</i> (MP 4, 7)	2—Measurable & well specified	
Use numerical strategies to determine the sum of up to four two-digit numbers, and the difference of two two-digit numbers <i>flexibly, accurately, and efficiently</i>. Justify a chosen strategy using the relationship between	1—Partially measurable / well specified	Poorly specified

<i>Build and use concrete and pictorial models</i> to determine the sums and differences of three-digit numbers with sums and minuends up to and including 999. Use the models <i>to represent and describe the structure of combining hundreds</i>	2—Measurable & well specified	
Mentally add and subtract multiples of 10 or 100 from a three-digit number and <i>justify the result</i> using place value language. (MP 3)	2—Measurable & well specified	
<i>Select and use appropriate tools</i> such as rulers, yardsticks, meter sticks, and measuring tapes to measure the length of objects to the nearest whole unit. (MP 5)	2—Measurable & well specified	
<i>Describe and represent</i> the length of an object using two different units of measure. <i>Describe the relationship</i> of the two measurements and relate them to the units chosen. (MP 7)	2—Measurable & well specified	
<i>Construct, justify, and communicate clear and reasonable arguments</i> when estimating lengths using inches, feet, centimeters, and meters. (MP 3)	2—Measurable & well specified	
Measure with <i>precision</i> to determine how much longer one object is than another. Express the difference in length using a standard unit. (MP 6)	2—Measurable & well specified	
<i>Build and use</i> a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2,... as a <i>model</i> to represent whole numbers as lengths from zero.	1—Partially measurable / well specified	Too vague
<i>Strategically use an open number line as a tool</i> <i>Attend to precision</i> when telling and writing time to the nearest five minutes. <i>Add context</i> to determine when to use a.m. and p.m., <i>attending to reasonableness</i> . (MP 2, 6)	1—Partially measurable / well specified	Too vague
<i>Add or remove context</i> when solving problems involving dollar bills, quarters, dimes, nickels, and pennies. (MP 2)	2—Measurable & well specified	
<i>Ask questions</i> to identify and describe shapes having specific attributes. Build and draw shapes that possess specified attributes. (MP 1)	1—Partially measurable / well specified	Too vague; Poorly specified
<i>Build and use models</i> to partition a rectangle into rows and columns of same-size squares and count to find the total number of squares. (MP 4)	2—Measurable & well specified	
<i>Describe and represent structures, patterns and relationships</i> when partitioning two-dimensional shapes into two, three, or four equal shares; describe the shares using the words halves, thirds, a fourth of, quarters, etc. Recognize	1—Partially measurable / well specified	Non-observable verb

Determine a topic question and *ask investigative questions* that will lead to collecting, analyzing, and interpreting data within the context of classroom and grade. (MP 1)

1—Partially
measurable / well
specified

Non-observable
verb; Poorly
specified

Collect and organize data. *Build data visualizations* including bar graphs and pictographs with single-unit scales. *Ask questions* to consider a given data set about a classroom or grade level context, and organize

1—Partially
measurable / well
specified

Multiple
expectations; Non-
observable verb

Analyze data sets and single-unit scale data visualizations using features such as titles, labels, and legends. *Ask questions* to make sense of the data. (MP 1)

1—Partially
measurable / well
specified

Non-observable
verb; Too vague

Interpret data to answer investigative questions. *Construct and justify arguments* about the data. Make conjectures about the impact missing data may have on interpretation of the data. (MP 3, 8)

2—Measurable & well specified

Instructional Focus			
Measurability Notes	Instructional Focus Tag	Instructional Focus Notes	Clarity & Accessibility Score (0-2)

"Attending to" isn't an observable behavior.	Major work	Building fluency with addition and subtraction	1—Partially clear and accessible
"Know from memory"; "Flexibly" and "efficiently" are subjective and undefined, making them difficult to	Major work	Building fluency with addition and subtraction	1—Partially clear and accessible
	Major work	builds early understanding of number patterns and structure and building fluency	1—Partially clear and accessible
	Major work	with addition and subtraction & the conceptual foundation for	1—Partially clear and accessible
	Major work	Extending understanding of base-ten (place value)	2—Clear and accessible
	Major work	Extending understanding of base-ten (place value)	1—Partially clear and accessible
	Major work	Extending understanding of base-ten (place value)	1—Partially clear and accessible
	Major work	Extending understanding of base-ten (place value)	2—Clear and accessible
"Flexibly" and "efficiently" are subjective and undefined, making them difficult to	Major work	Extending understanding of base-ten (place value)	2—Clear and accessible

	Major work	Building fluency with addition and subtraction; Extending understanding of	1—Partially clear and accessible
	Major work	Building fluency with addition and subtraction; Extending understanding of	2—Clear and accessible
	Supporting work	measurement	2—Clear and accessible
	Supporting work	measurement	2—Clear and accessible
	Supporting work	measurement	1—Partially clear and accessible
	Supporting work	measurement	2—Clear and accessible
"Strategically use"	Major work	the standard is fundamentally about: representing whole numbers on	1—Partially clear and accessible
"Add context to determine" and "attending to reasonableness"	Supporting work	measurement	1—Partially clear and accessible
	Supporting work	measurement	2—Clear and accessible
ASK questions to identify and describe shape" is vague and high-inference. It does	Additional work	geometry	2—Clear and accessible
	Additional work	geometry	2—Clear and accessible
"Recognize that"	Additional work	geometry	1—Partially clear and accessible

"Investigative questions that will lead to collecting, analyzing, and interpreting data" is indirect and high-inference. It focuses on the purpose of the questions rather than specifying observable qualities (e.g., number, type, or alignment to variables). "Ask questions to consider" is less precise and more open-ended. It does not clearly define "Analyze" how? "Ask questions to make sense of the data" is vague and high-inference. It does not specify the type, quality, or purpose of the questions (e.g., comparison, interpretation, or inference). The phrase "make sense of the data" reflects an internal cognitive process, not a directly observable performance. The expectation combines multiple skills (analysis + question generation), which makes it harder to assess with a single, focused performance.	Supporting work	data representation and analysis	1—Partially clear and accessible
"Ask questions to consider" is less precise and more open-ended. It does not clearly define "Analyze" how? "Ask questions to make sense of the data" is vague and high-inference. It does not specify the type, quality, or purpose of the questions (e.g., comparison, interpretation, or inference). The phrase "make sense of the data" reflects an internal cognitive process, not a directly observable performance. The expectation combines multiple skills (analysis + question generation), which makes it harder to assess with a single, focused performance.	Supporting work	data representation and analysis	1—Partially clear and accessible
"make sense of the data" reflects an internal cognitive process, not a directly observable performance. The expectation combines multiple skills (analysis + question generation), which makes it harder to assess with a single, focused performance.	Supporting work	data representation and analysis	2—Clear and accessible

Supporting work	data representation and analysis	1—Partially clear and accessible
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Clarity & Accessibility		DOK	
Clarity & Accessibility Issue Flag	Clarity & Accessibility Notes	DOK Level (1-4)	DOK Notes
Jargon; Other	While terms like "minuends" & "unknowns in all positions" are appropriate and precise, they are technical and may not be familiar and accessible to all.	3	Multi-step problems, unknowns in all positions, and context shifts require strategic reasoning.
Vague/ambiguous language; Insufficient guidance to understand PE	The phrase "attending to the meaning of the "strategies and properties" are broad and not defined (e.g., counting on, making ten, commutative	1	Fact fluency and efficient computation rely on recall and routine procedures.
Jargon; Insufficient guidance to understand PE	The phrase "describe and represent structures and patterns" is abstract and does not the statement is long and combines multiple expectations (modeling, describing patterns, making conjectures)	2	Identifying odd/even through patterns requires conceptual understanding
Jargon; Other		3	"making and evaluating conjectures about arrays requires reasoning beyond representing place value with models shows conceptual understanding of making
Jargon	The term "conjectures" while appropriate may be unfamiliar to many.	3	conjectures about counting patterns requires pattern analysis and reading and
Jargon	The phrases "base 10 word form" and "expanded form" are somewhat technical and may not	1	writing numbers is primarily recall; the representations
		2	comparing numbers uses place value concepts with a clear solution
		3	Justifying strategies involves reasoning about properties and

Jargon; Other	the term minuends while appropriate is technical and may not be accessible to all users	3	Connecting models to strategies and asking questions requires deeper conceptual
		3	computation with justification requires explanation of
		2	Selecting and using measurement tools is application of
		2	comparing measurements across units requires
Insufficient guidance to understand PE	It is unclear what qualifies as a "reasonable argument" at this level.	3	conceptual constructing and justifying estimates requires
		2	measuring and comparing lengths is procedural with some application
Insufficient guidance to understand PE	"Strategically use an open number line" is vague—what "strategically" means is	2	Using number lines to model problems applies
Insufficient guidance to understand PE	The phrases "attending to reasonableness" and "add context" are abstract and does not	2	known strategies. Applying time concepts in context requires reasoning but
		2	remains routine Solving money problems with context shifts involves
		2	application with identifying and building shapes with attributes applies
		2	using conceptual arrays/area models to count squares is structured
Vague/ambiguous language	The phrase "describe and represent structures, patterns and relationships" is	2	conceptual work Partitioning shapes and describing shares applies known fraction

Insufficient guidance to understand PE	The phrase "determine a topic question" is unclear and may blur the difference between a topic and a specific question. "Investigative questions" is somewhat abstract and not defined with examples. The phrase "within the context of classroom and grade" is awkward and vague.	3	Developing investigative questions requires planning and inquiry.
Vague/ambiguous language; Insufficient guidance to understand PE	The standard combines multiple expectations (collecting, graphing, questioning, organizing by variables), which	2	Collecting and representing data follows clear processes.
		2	Analyzing graphs and asking questions is routine interpretation.

Jargon; Vague/ambiguous language	The phrase "investigative questions" is somewhat abstract and not defined with examples. "Construct and justify arguments" is formal and does not clearly describe what students should do (e.g., explain using data, point to a graph). "Make conjectures" while appropriate is technical and may not be easily understood without an example	3	Interpreting data, justifying claims, and considering missing data requires strategic reasoning.
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Mathematical Rigor		Developmental Appropriateness	
Mathematical Rigor Tag(s)	Mathematical Rigor Notes	Developmental Appropriateness Score (0-2)	Developmental Appropriateness Flag
Applications	Solving one- and two-step story problems applies mathematical concepts in real-world contexts, including interpreting unknowns and the equal sign. Focuses on efficient, accurate computation and memorization of basic facts.	2—Developmentally appropriate	
Procedural Skill / Fluency	Determining odd/even through patterns and grouping	2—Developmentally appropriate	
Conceptual Understanding	emphasizes number Arrays and repeated addition build understanding of structure and demonstrates place value	2—Developmentally appropriate	
Conceptual Understanding	relationships across hundreds, tens, and ones	2—Developmentally appropriate	
Conceptual Understanding; Procedural Skill / Fluency	counting (procedural) with pattern recognition and reading and representing numbers	2—Developmentally appropriate	
Conceptual Understanding; Procedural Skill / Fluency	(procedural) while showing place	2—Developmentally appropriate	
Conceptual Understanding; Procedural Skill / Fluency	Comparing numbers procedurally while applying place value reasoning. computation	2—Developmentally appropriate	
Conceptual Understanding; Procedural Skill / Fluency	(procedural) with justification and strategy connections	2—Developmentally appropriate	

Conceptual Understanding	Emphasizes place value structure and reasoning through modeling and comparison	2—Developmentally appropriate
Conceptual Understanding	Mental computation supported by place value reasoning and justification. Measuring	2—Developmentally appropriate
Applications; Procedural Skill / Fluency	accurately (procedural) using real-world tools (application)	2—Developmentally appropriate
Conceptual Understanding; Procedural Skill / Fluency	comparing measurements across units requires understanding estimation and justification	2—Developmentally appropriate
Conceptual Understanding	emphasize reasoning about measurement	2—Developmentally appropriate
Procedural Skill / Fluency	Focuses on precise measurement and determining differences.	2—Developmentally appropriate
Conceptual Understanding	Number lines model mathematical structure.	2—Developmentally appropriate
Applications; Procedural Skill / Fluency	telling time accurately (procedural) in real-life contexts (application)	2—Developmentally appropriate
Applications	solving money problems applies math to real-world financial	2—Developmentally appropriate
Conceptual Understanding	identifying defining attributes builds geometric reasoning	2—Developmentally appropriate
Conceptual Understanding	understanding arrays as equal groups connects to structure and partitioning	2—Developmentally appropriate
Conceptual Understanding	shapes and reasoning about equal shares deepens fractional	2—Developmentally appropriate

Applications	Formulating questions for investigations applies math in context.	2—Developmentally appropriate
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Applications; Procedural Skill / Fluency	Creating graphs (procedural) to represent real-world data (application).	2—Developmentally appropriate
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Conceptual Understanding; Applications	Analyzing structured data while making sense of it in context.	2—Developmentally appropriate
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Conceptual Understanding; Applications	Interpreting, justifying, and considering missing data applies reasoning to real-world data.	2—Developmentally appropriate
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ss	Integration of Appropri	
Developmental Appropriateness Notes	Math Practice Integration	Math Practice Appropriateness

2—All named practices integrated	2—All named practices appropriate
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riate Mathematical Practices

Identify Better Aligned
MP Connection (if any and
if misaligned)

Mathematical Practice
Integration Notes

MP2

MP7

MP6

MP7

MP7

MP7

MP6

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Domain	Standard ID	Standard Text
Operation and Algebraic Thinking (OA)	4.OA.1	<i>Build and use</i> models to visualize a multiplication equation as a comparison. <i>Represent</i> verbal statements of multiplicative comparisons as multiplication equations. (MP 4, 7)
Operation and Algebraic Thinking (OA)	4.OA.2	Solve story problems involving multiplicative comparison by <i>building and using models</i> , including drawings and equations with a symbol for the unknown number. <i>Make and evaluate</i> conjectures about the difference between multiplicative and additive comparison. (MP 4, 8)
Operation and Algebraic Thinking (OA)	4.OA.3	Use and name properties of operations to <i>justify</i> strategies used to solve problems involving the four operations. (MP 3)
Operation and Algebraic Thinking (OA)	4.OA.4	<i>Build and use models</i> to solve multi-step story problems involving whole numbers using the four operations, including problems in which remainders must be interpreted. <i>Attend to the reasonableness of answers</i> . <i>Remove context</i> to represent situations as equations with a variable standing in for the unknown quantity. (MP 2, 4, 6)
Operation and Algebraic Thinking (OA)	4.OA.5	Find factors and multiples of whole numbers. <i>Make and test conjectures</i> about the relationship between any whole number and its factors. (MP 8)
Operation and Algebraic Thinking (OA)	4.OA.6	Generate a number or shape pattern based on a given rule. <i>Describe and represent</i> the features of the pattern that are not explicitly stated in the rule itself. <i>Make and test conjectures</i> about how the pattern will continue. (MP 7, 8)

Number and Operations in Base Ten (NBT)	4.NBT.1	<i>Describe the structure</i> of place value by explaining how the value of one place represents ten times more than the place to its right. <i>Represent those patterns</i> with a statement of multiplicative comparison. (MP 7)
Number and Operations in Base Ten (NBT)	4.NBT.2	Read multi-digit whole numbers up to and including 1,000,000. <i>Represent</i> multi-digit whole numbers using numerals and expanded form. (MP 7)
Number and Operations in Base Ten (NBT)	4.NBT.3	Compare two whole numbers with up to 6 digits and <i>represent the relationship</i> between two numbers using comparison symbols <, =, and >. (MP 7)
Number and Operations in Base Ten (NBT)	4.NBT.4	Apply knowledge of place value structure to round whole numbers up to and including six digits <i>in and out of context</i> . <i>Justify</i> whether rounding is appropriate in a given situation. (MP 2, 3)
Number and Operations in Base Ten (NBT)	4.NBT.5	Use efficient algorithms to determine sums and differences of multi-digit whole numbers <i>in real-world contexts and equations flexibly, accurately, and efficiently</i> . Determine if sums and differences are <i>reasonable</i> . (MP 2, 6)
Number and Operations in Base Ten (NBT)	4.NBT.6	Develop <i>visual and numerical models</i> based on place value and/or the properties of multiplication to multiply a whole number of up to four digits by a one-digit whole number, and to multiply two two-digit numbers. (MP 4)

Number and Operations in Base Ten (NBT)	4.NBT.7	<i>Develop visual and numerical models</i> based on place value and/or the relationship between multiplication and division to divide up to a three-digit number by a one-digit number. (MP 4)
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Number and Operations–Fractions (NF)	4.NF.1	Compose and decompose fractions, mixed numbers and fractions greater than one by <i>building and using models</i> . Represent fractions as the sum of fractions with the same denominator in more than one way. Justify the equivalence with equations. Recognize that a value can be expressed as a fraction greater than one and an equivalent mixed number. (MP 3, 4)
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Number and Operations–Fractions (NF)	4.NF.2	<i>Recognize and generate equivalent fractions, connecting numerical strategies to visual fraction models</i> . Make and test conjectures about what happens to a fraction when the numerator and the denominator are multiplied by the same number. (MP 8)
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Number and Operations–Fractions (NF)	4.NF.3	Compare and order fractions with different numerators and denominators. <i>Construct and communicate arguments that justify</i> the order of the fractions. (MP 3)
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Number and Operations–Fractions (NF)	4.NF.4	<i>Build and use models</i> to add and subtract fractions with like denominators, including mixed numbers. Solve problems involving addition and subtraction of fractions <i>in real world contexts and equations</i> . (MP 2, 4)
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Number and Operations–Fractions (NF)	4.NF.5	<i>Build and use models</i> to extend understanding of multiplication to fractions. Connect repeated addition to multiplication when multiplying a fraction by a whole number. Multiply a fraction by a whole number using numerical strategies. Solve problems involving multiplying a fraction by a whole number <i>in real world contexts</i> . (MP 2, 4)
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Number and Operations—Fractions (NF)	4.NF.6	<i>Build and use models</i> to express a fraction with denominator of 10 as an equivalent fraction with denominator of 100, and use this technique to add two fractions with respective denominators of 10 and 100. (MP 4)
Number and Operations—Fractions (NF)	4.NF.7	Connect decimal notation to fractions with denominators of 10 or 100. <i>Construct clear and reasonable arguments to justify</i> how the decimal notation and fraction are equivalent. (MP 3)
Number and Operations—Fractions (NF)	4.NF.8	Compare two decimal numbers to the hundredths place by reasoning about their size. Justify the comparison. <i>Represent the relationship</i> between two numbers using comparison symbols $<$, $=$, and $>$. (MP 3, 7)
Measurement and Geometry (MG)	4.MG.1	<i>Add and remove context</i> to solve real-world and mathematical problems involving the area and perimeter of rectangles and rectilinear shapes. <i>Build and use models</i> to make sense of the area and perimeter formulas for rectangles. (MP 2, 4)
Measurement and Geometry (MG)	4.MG.2	Draw points, lines, line segments, rays, angles (right, acute, and obtuse), and perpendicular and parallel lines. <i>Describe these structures and their relationships</i> within two-dimensional figures. (MP 7)
Measurement and Geometry (MG)	4.MG.3	<i>Describe</i> angles as geometric figures formed by two rays with a common endpoint. Understand that an angle is measured with reference to a circle. <i>Describe the relationship</i> between an angle's measure and the fraction of the circular arc that it represents. (MP 7)

Measurement and Geometry (MG)	4. MG. 4	<i>Attend to precision and reasonableness</i> when measuring or sketching angles in whole-number degrees using a protractor. (MP 6)
Measurement and Geometry (MG)	4. MG. 5	Understand and demonstrate the additive nature of angle measures. Find and <i>justify</i> unknown angles on a diagram using addition and subtraction. (MP 3)
Measurement and Geometry (MG)	4. MG. 6	Compare and classify two-dimensional figures including quadrilaterals and triangles based on the presence or absence of parallel lines, perpendicular lines, and angles of specified sizes. <i>Justify and evaluate the classification.</i> (MP 3)
Data Science (D)	4. D. 1	Determine a topic question and <i>ask investigative questions</i> that will lead to collecting, analyzing, and interpreting data with up to two variables. <i>Make conjectures</i> about the impact of the sampling process and sample size on results. (MP 1, 8)
Data Science (D)	4. D. 2	<i>Select and use tools strategically</i> to collect and organize data. Build data visualizations. <i>Ask questions</i> to consider a given data set with up to two variables. (MP 1, 5)
Data Science (D)	4. D. 3	Analyze data and data visualizations. <i>Evaluate conjectures</i> about how different sampling processes or data visualizations might influence interpretation of data. (MP 6, 8)

Data Science (D)

4.D.4

Interpret data and data visualizations to answer investigative questions. *Construct and justify arguments* about the data. Discuss ways that the sampling process and sample size may affect how people draw conclusions from data. Identify ways to refine investigative questions, data collection, visualization, or analysis. (MP 3)

Measureability			Instructional
Measurability Score (0-2)	Measurability Issue Flag	Measurability Notes	Instructional Focus Tag
1—Partially measurable / well specified	Multiple expectations	Represent verbal statements a separate PE.	Major work
1—Partially measurable / well specified	Multiple expectations	This standard includes two separate, distinct PEs.	Major work
1—Partially measurable / well specified	Too vague	Unclear if students will use properties, justify, or both.	Major work
1—Partially measurable / well specified	Multiple expectations	This standard includes two separate, distinct PEs.	Major work
1—Partially measurable / well specified	Too broad	"Make and test conjectures about the relationship" is not specific	Supporting work
1—Partially measurable / well specified	Too broad	"Describe and represent" and "make and test conjectures" are more open-ended.	Additional work

2—Measurable & well specified			Major work
2—Measurable & well specified			Major work
2—Measurable & well specified			Major work
2—Measurable & well specified			Major work
1—Partially measurable / well specified	Poorly specified	"Flexibly" and "efficiently" are subjective and undefined, making them difficult to assess consistently without explicit criteria.	Major work
2—Measurable & well specified			Major work

2—Measurable & well specified			Major work
1—Partially measurable / well specified	Multiple expectations	This standard includes two separate, distinct PEs.	Major work
2—Measurable & well specified			Major work
2—Measurable & well specified			Major work
1—Partially measurable / well specified	Multiple expectations	This standard includes two separate, distinct PEs.	Major work
1—Partially measurable / well specified	Poorly specified; Multiple expectations	"Build and use models to extend understanding " is ambiguous, as it isn't clear whether students will be expected to build models with the	Major work

2—Measurable & well specified			Major work
2—Measurable & well specified			Major work
2—Measurable & well specified		The PEs in this standard are all tightly related.	Major work
1—Partially measurable / well specified	Multiple expectations	While these PEs are related, they need to be assessed using different types of tasks/items and should not be combined into one "Describe these structures and their relationships"	Major work
1—Partially measurable / well specified	Too vague	doesn't describe a level of precision needed.	Additional work
1—Partially measurable / well specified	Lacks performance expectation	"Understand that an angle is measured with reference to a circle" is not measurable.	Additional work

0—Not measurable or poorly specified	Non-observable verb	"Attend to precision and reasonableness" not measurable.	Additional work
1—Partially measurable / well specified	Non-observable verb	"Understand" not observable.	Additional work
2—Measurable & well specified			Additional work
2—Measurable & well specified			Supporting work
1—Partially measurable / well specified	Non-observable verb	"Use tools strategically" is not measurable	Supporting work
1—Partially measurable / well specified	Too vague	"Evaluate conjectures"	Supporting work

1—Partially measurable / well specified	Poorly specified	"construct and justify arguments about the data" is not specified enough	Supporting work
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Instructional Focus		Clarity & Accessibility	
Instructional Focus Notes	Clarity & Accessibility Score (0-2)	Clarity & Accessibility Issue Flag	Clarity & Accessibility Notes

1—Partially clear and accessible
Insufficient guidance to understand PE
The language in the first sentence reads awkwardly. Both PEs could use examples to clarify what the PE is.

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

2—Clear and
accessible

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accessible

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accessible

2—Clear and
accessible

1—Partially
clear and
accessible

Insufficient guidance to
understand PE

The terms “flexibly,
accurately, and
efficiently” are
somewhat abstract and
open to interpretation
without clear
definitions or
examples

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

1—Partially
clear and
accessible

Insufficient guidance to
understand PE

Solve problems...in
real world contexts and
equations" is slightly
ambiguous—are students
solving word problems
and equations, or
solving word problems
by writing equations?
Students selecting/

1—Partially
clear and
accessible

Vague/ambiguous language

developing models with
the intention of
extending their
understanding is not
developmentally
appropriate. We suspect
that this is not the

1—Partially clear and accessible	Other	"Build and use models" is somewhat vague and probably unnecessarily wordy. The PE is clearer without it.
2—Clear and accessible		
2—Clear and accessible		
2—Clear and accessible		
1—Partially clear and accessible	Vague/ambiguous language	Minor clarity issues with "describe these structures." Consider using "geometric elements."
2—Clear and accessible		

2—Clear and accessible

1—Partially clear and accessible

Vague/ambiguous language

"additive nature" a bit vague. Consider this:
Use angle addition (adjacent angles sum to the whole) to find and justify unknown angle measures in diagrams using addition and

2—Clear and accessible

2—Clear and accessible

1—Partially clear and accessible

Vague/ambiguous language; Insufficient guidance to understand PE

"Ask questions to consider a given data set with up to two variables" is both vague and does not provide enough guidance to understand the PE.

1—Partially clear and accessible

Vague/ambiguous language

Consider giving examples of "data visualizations".

1—Partially
clear and
accessible

Vague/ambiguous language

Consider giving
examples of "data
visualizations." Also
not clear what is meant
by "investigative
questions" without
examples.

DOK		Mathematical Rigor	
DOK Level (1-4)	DOK Notes	Mathematical Rigor Tag(s)	Mathematical Rigor Notes

2
Conceptual
Understanding;
Procedural Skill /
Fluency

3
Conceptual
Understanding;
Applications

3
Procedural Skill /
Fluency;
Conceptual
Understanding

3
Conceptual
Understanding;
Applications

3
Procedural Skill /
Fluency;
Conceptual
Understanding

3
Procedural Skill /
Fluency;
Conceptual
Understanding

2 Procedural Skill /
 Fluency;
 Conceptual
 Understanding

2 Procedural Skill /
 Fluency

2 Procedural Skill /
 Fluency

3 Conceptual
 Understanding

2 Conceptual
 Understanding;
 Applications

2 Conceptual
 Understanding

2 Conceptual
 Understanding

2 Conceptual
 Understanding

3 Conceptual
 Understanding;
 Procedural Skill /
 Fluency

3 Conceptual
 Understanding

2 Applications;
 Procedural Skill /
 Fluency

3 Applications;
 Procedural Skill /
 Fluency

2 Procedural Skill /
 Fluency

3 Conceptual
 Understanding

2 Conceptual
 Understanding;
Procedural Skill /
 Fluency

2 Conceptual
 Understanding;
 Applications

2 Procedural Skill /
 Fluency

2 Procedural Skill /
 Fluency

2 Conceptual
Understanding

2 Conceptual
Understanding

3 Conceptual
Understanding;
Procedural Skill /
Fluency

4 Applications

3 Applications

3 Conceptual
Understanding;
Applications

Developmental Appropriateness		
Developmental Appropriateness Score (0-2)	Developmental Appropriateness Flag	Developmental Appropriateness Notes

2—Developmentally appropriate

2—Developmentally appropriate

2—Developmentally appropriate

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Integration of Appropriate Mathematical Practice		
Math Practice Integration	Math Practice Appropriateness	Identify Better Aligned MP Connection (if any and if misaligned)

2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP1
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Mathematical Practice Integration Notes

The link to MP 6 seems
very weak. "Attend to the
reasonableness of
answer."

Consider instead
integrating MP 7 as
students try to
understand the
relationship between
multiplication and
division.

MP 2 is not well
integrated since students
aren't the ones adding or
removing the contexts in
this standard

MP 2 is not well
integrated since students
aren't the ones adding or
removing the contexts in
this standard

Consider MP 7. Students focus on structure of shapes while comparing and classifying them.

MP 8 doesn't ask students to evaluate conjectures – just to make conjectures and then evaluate results of solutions.

Consider adding MP 1: "As
students build capacity
to ask probing questions,
they engage in more
meaningful discourse
about the mathematics."

Domain	Standard ID
Operations and Algebraic Thinking (OA)	5.OA.1
Operations and Algebraic Thinking (OA)	5.OA.2
Operations and Algebraic Thinking (OA)	5.OA.3
Number and Operations in Base Ten (NBT)	5.NBT.1
Number and Operations in Base Ten (NBT)	5.NBT.2
Number and Operations in Base Ten (NBT)	5.NBT.3
Number and Operations in Base Ten (NBT)	5.NBT.4
Number and Operations in Base Ten (NBT)	5.NBT.5

Number and Operations in Base Ten (NBT)	5. NBT. 6
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Number and Operations in Base Ten (NBT)	5. NBT. 7
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Number and Operations in Base Ten (NBT)	5. NBT. 8
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Number and Operations in Base Ten (NBT)	5. NBT. 9
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Number and Operations in Base Ten (NBT)	5. NBT. 10
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Number and Operations—Fractions (NF)	5. NF. 1
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Number and Operations—Fractions (NF)	5. NF. 2
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Number and Operations—Fractions (NF)	5. NF. 3
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Number and Operations—Fractions (NF)	5. NF. 4
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Number and Operations—Fractions (NF)	5. NF. 5
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Measurement and Geometry (MG)	5. MG. 1
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Measurement and Geometry (MG)	5. MG. 2
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Measurement and Geometry (MG)	5. MG. 3
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Measurement and Geometry (MG)	5. MG. 4
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Data Science (D)	5. D. 1
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Data Science (D)	5. D. 2
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Data Science (D)	5. D. 3
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Data Science (D)	5. D. 4
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Standard Text	Measurability Score (0-2)	Measurability Issue Flag
<i>Use structures, patterns, and relationships</i> to determine whether a given whole number between 1 and 100 is prime or composite. (MP 7) <i>Add context</i> to make sense of numerical expressions involving multiple operations with parentheses, brackets, or braces. Write and/or evaluate numerical expressions. (SMP 2)	2—Measurable & well specified	
Generate two numerical patterns using two given rules. <i>Describe and represent relationships</i> between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns and graph the ordered pairs on a coordinate plane. (MP 7)	1—Partially measurable / well specified	Multiple expectations
<i>Describe the structure</i> of place value by explaining that the value of one place represents ten times as much as the place to its right and 1/10 of the place to its left. <i>Represent those patterns</i> with a statement of multiplicative comparison. (MP 7)	2—Measurable & well specified	
<i>Represent</i> powers of 10 with whole-number exponents. <i>Make and test conjectures about</i> a decimal's placement when multiplying by powers of 10. (MP 7, 8)	2—Measurable & well specified	
<i>Describe and represent</i> decimals to the thousandths place using models, base-ten numerals, number names, and expanded forms. (MP 7)	2—Measurable & well specified	
Compare two decimal numbers and <i>represent</i> the relationship between the two numbers using comparison symbols <, =, and >. (MP 7)	2—Measurable & well specified	
Apply knowledge of place value structure to round decimal numbers to the nearest whole, tenth, or hundredth <i>in and out of context</i>. Determine and <i>justify</i> situations where rounding is appropriate. (MP 2, 3)	2—Measurable & well specified	

Use efficient numerical strategies based on properties of multiplication and/or place value to multiply a whole number of up to four digits by a one digit whole number and to multiply two two-digit numbers <i>flexibly, accurately, and efficiently in real-world contexts and equations</i> . Determine if products are reasonable. (MP 2, 6)	1—Partially measurable / well specified	Non-observable verb; Too vague
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Use efficient numerical strategies based on properties of multiplication and/or place value to divide up to a four digit number by a one digit number. <i>Communicate</i> the meaning of the remainder <i>in real world contexts</i> . (MP 2, 3)	1—Partially measurable / well specified	Too vague
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<i>Build and use models</i> to find sums and differences of decimals to hundredths <i>in real-world contexts and equations</i> . Use the models to <i>represent and describe the structure</i> of adding tenths with tenths and hundredths with hundredths. (MP 2, 4, 7)	2—Measurable & well specified	
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<i>Build and use models</i> to find products of decimals to hundredths <i>in real-world contexts and equations</i> . (MP 2, 4)	2—Measurable & well specified	
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<i>Build and use models</i> to find quotients of decimals limited to a whole number dividend with a decimal divisor of tenths between 0 and 1, or a decimal dividend with a single-digit whole number divisor <i>in real-world contexts and equations</i> . (MP 2, 4)	2—Measurable & well specified	
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Add and subtract fractions with unlike denominators <i>with precision</i> . Solve problems involving addition and subtraction with unlike denominators <i>in real world contexts and equations</i> . Determine if the solution is <i>reasonable</i> . (MP 2, 6)	2—Measurable & well specified	
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Interpret a fraction as division (a/b is the same as $a \div b$). Solve problems involving division <i>in real world contexts using visual models and/or equations</i> . (MP 2, 4)	2—Measurable & well specified	
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<i>Build and use models</i>, including area models, to multiply fractions, whole numbers, and mixed numbers. Connect the properties of multiplication to multiplying fractions. Solve problems involving multiplication of fractions and mixed numbers <i>using real world contexts and equations</i> (fraction by a fraction, fraction by a mixed number, mixed number by mixed number). (MP 2, 4)	1—Partially measurable / well specified	Multiple expectations
Interpret multiplication as scaling. <i>Construct, justify, and communicate clear and reasonable arguments</i> about the size of the resulting product when multiplying a given number by a fraction greater than one, a fraction less than one, a fraction equal to one. <i>Make and test conjectures</i> about the size of the product based on the size of the factors without computing. (MP 3, 8)	2—Measurable & well specified	
<i>Build and use models</i> that extend understanding of division to divide unit fractions by whole numbers and whole numbers by unit fractions. Solve problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions using real world contexts and equations. <i>Make conjectures</i> about the relationship between multiplication and division when operating with fractions and <i>evaluate the results</i>. (MP 2, 4, 8)	0—Not measurable or poorly specified	Multiple expectations
Recognize volume as an attribute of solid figures. <i>Build and use models</i> to understand the concept of volume. Demonstrate that unit cubes can be packed into rectangular prisms. Determine volume by counting unit cubes and expressing the volume in cubic units. (MP 4)	1—Partially measurable / well specified	Too vague; Non-observable verb
<i>Build and use models</i> to make sense of and apply the formulas for finding the volume of right rectangular prisms. <i>Add or remove context to solve real-world problems</i> involving the volume of a right rectangular prisms with whole-number side lengths. (MP 2, 4)	2—Measurable & well specified	
<i>Build and use a model</i> of the coordinate plane to represent real-world problems. Understand the numbers in the coordinate pair indicate distance from the origin in the direction of the horizontal and vertical axes. Graph points in the first quadrant of the coordinate plane Interpret coordinate values based on a given context. (MP 2, 4)	1—Partially measurable / well specified	Multiple expectations; Non-observable verb

<i>Describe and represent structure, patterns, and relationships</i> when classifying quadrilaterals in a hierarchy based on attributes. (MP 7)	2—Measurable & well specified	
Determine a topic question and <i>ask investigative questions</i> that will lead to collecting, analyzing, and interpreting data with up to four variables. <i>Ask questions</i> to identify potential sources of bias in data collection, representation, and interpretation. (MP 1)	2—Measurable & well specified	
<i>Select and use tools strategically</i> , to collect and organize data. Build data visualizations. <i>Ask questions</i> to consider a given data set with up to four variables. <i>Make conjectures about</i> potential sampling approaches and how those approaches impact results. (MP 1, 5, 8)	1—Partially measurable / well specified	Too vague
Analyze data sets with up to four variables and multiple data visualizations <i>Evaluate</i> sampling approaches and data visualizations to identify potential data bias. (MP 6, 8)	2—Measurable & well specified	
Interpret data and data visualizations to answer investigative questions while considering the impact of data bias, choice of data visualizations, and sample size. <i>Construct and justify arguments</i> about the data based on visible features of distribution such as center and range. Identify ways to refine investigative questions, data collection, visualization. or analysis. (MP 3)	2—Measurable & well specified	

Instructional Focus			
Measurability Notes	Instructional Focus Tag	Instructional Focus Notes	Clarity & Accessibility Score (0-2)

	Additional work		2—Clear and accessible
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These are two distinct PEs.	Additional work		2—Clear and accessible
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While this could be read as separate PEs, they are all connected. "Describe and represent relationships" is quite broad.	Additional work		2—Clear and accessible
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	Additional work		2—Clear and accessible
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	Major work		2—Clear and accessible
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	Major work		2—Clear and accessible
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	Major work		2—Clear and accessible
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	Major work		2—Clear and accessible
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"flexibly and efficiently" is difficult to measure. Also, reasonable can be subjective.

Major work

1—Partially clear and accessible

use efficient strategies is vague. Maybe consider giving examples.

Major work

1—Partially clear and accessible

Major work

2—Clear and accessible

Major work

2—Clear and accessible

Major work

2—Clear and accessible

Major work

2—Clear and accessible

Major work

2—Clear and accessible

Solve problems seems like a separate PE.	Major work	2—Clear and accessible
	Major work	1—Partially clear and accessible
I see three PEs in this standard. It would be hard to measure these together.	Major work	1—Partially clear and accessible
"Recognize volume as an attribute of a solid figure vague. "	Major work	2—Clear and accessible
	Major work	2—Clear and accessible
"Understand" not an observable verb. " Seems building a model and then graphing on the coordinate plane could be different PEs.	Additional work	2—Clear and accessible

	Additional work	2—Clear and accessible
	Supporting work	1—Partially clear and accessible
Use tools strategically vague.	Supporting work	2—Clear and accessible
	Supporting work	2—Clear and accessible
	Supporting work	1—Partially clear and accessible

Clarity & Accessibility		DOK	
Clarity & Accessibility Issue Flag	Clarity & Accessibility Notes	DOK Level (1-4)	DOK Notes

2

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	The terms "flexibly, accurately, and efficiently" are subjective, making the PE unclear without examples. Also, there is some redundancy about efficiency: "use efficient numerical strategies to multiply numbers efficiently" "efficient numerical strategies" Consider: Divide a whole number of up to four digits by a one-digit whole number using place- value reasoning and multiplication properties, and show the strategy used.	2
Vague/ambiguous language		2
Vague/ambiguous language		2

3

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3

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3

Vague/ambiguous language "Interpret" is vague. 2

Vague/ambiguous language "extend understanding
of division" is 3
ambiguous.

2

2

Note that the standard
is missing a period 2
after "plane".

3

Vague/ambiguous
language; Unclear
grammar/typo(s)

It is not clear what is
meant by "investigative
questions". Examples
would help. Note:
representation is
misspelled.

4

4

3

Vague/ambiguous language

It is not clear what is
meant by "investigative
questions". Examples
would help.

3

The type of task
could potentially
be DOK 4
depending on the
specifics, but as
written, can only
guarantee DOK 3.

Mathematical Rigor		Developmental Appropriateness	
Mathematical Rigor Tag(s)	Mathematical Rigor Notes	Developmental Appropriateness Score (0-2)	Developmental Appropriateness Flag
Conceptual Understanding		2—Developmentally appropriate	
Conceptual Understanding		2—Developmentally appropriate	
Procedural Skill / Fluency; Conceptual Understanding		2—Developmentally appropriate	
Conceptual Understanding		2—Developmentally appropriate	
Procedural Skill / Fluency; Conceptual Understanding		2—Developmentally appropriate	
Procedural Skill / Fluency; Conceptual Understanding		2—Developmentally appropriate	
Procedural Skill / Fluency		2—Developmentally appropriate	
Conceptual Understanding; Applications		2—Developmentally appropriate	

Procedural Skill /
Fluency;
Conceptual
Understanding;
Applications

2—Developmentally
appropriate

Procedural Skill /
Fluency;
Conceptual
Understanding;
Applications

2—Developmentally
appropriate

Conceptual
Understanding;
Applications

2—Developmentally
appropriate

Conceptual
Understanding;
Applications

2—Developmentally
appropriate

Conceptual
Understanding;
Applications

2—Developmentally
appropriate

Procedural Skill /
Fluency;
Applications

2—Developmentally
appropriate

Procedural Skill /
Fluency;
Applications;
Conceptual
Understanding

2—Developmentally
appropriate

Conceptual
Understanding;
Applications

2—Developmentally
appropriate

Conceptual
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appropriate

Conceptual
Understanding;
Applications

2—Developmentally
appropriate

Procedural Skill /
Fluency;
Conceptual
Understanding

2—Developmentally
appropriate

Conceptual
Understanding;
Applications

2—Developmentally
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Applications

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Conceptual
Understanding;
Applications

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2—Developmentally
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Conceptual
Understanding;
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2—Developmentally
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ss		Integration of Approp
Developmental Appropriateness Notes	Math Practice Integration	Math Practice Appropriateness

2—All named practices
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Appropriate Mathematical Practices	
Identify Better Aligned MP Connection (if any and if misaligned)	Mathematical Practice Integration Notes

MP4	Using models enhances student learning while providing students with multiple ways to represent and understand
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MP7

Students describe and
represent structures,
patterns, and
relationships to make
sense of mathematics.

Domain	Standard ID	Standard Text
Algebra (A)	6.A.1	<i>Use structure</i> to write and evaluate numerical expressions involving whole numbers exponents. (MP 7)
Algebra (A)	6.A.2	<i>Describe and represent patterns and structures of</i> expressions to write, read, and evaluate algebraic expressions. (MP 7)
Algebra (A)	6.A.3	Use properties of operations <i>as tools to</i> generate equivalent expressions. Use properties of operations and understanding of arithmetic to <i>justify</i> why two expressions are equivalent. (MP 3, 5)
Algebra (A)	6.A.4	Use substitution to reason about whether a given number in a specified set makes an equation or inequality true. Provide <i>justification</i> to support that reasoning. (MP 3)
Algebra (A)	6.A.5	<i>Describe, represent</i> and solve real-world and mathematical problems using variables within the <i>structure</i> of one-step equations and inequalities. (MP 7)
Algebra (A)	6.A.6	Create equations to <i>model</i> relationships between two quantities using variables, both <i>in and out of context</i> . (MP 2, 4)

Number Systems (NS)	6.NS.1	Extend prior understanding of multiplication and division to divide fractions by fractions. <i>Build and use visual fraction models</i> to make sense of and solve problems dividing fractions by fractions. <i>Add and remove context with</i> problems involving division of fractions by fractions and interpret the quotients. (MP 2, 4)
Number Systems (NS)	6.NS.2	Describe and represent structures and patterns to apply an algorithm to divide multi-digit decimals <i>flexibly, accurately, and efficiently</i>. Limit division to a whole number dividend with a decimal divisor or a decimal dividend with a whole number divisor. Determine and <i>justify</i> situations where estimation is appropriate. (MP 3, 6, 7)
Number Systems (NS)	6.NS.3	<i>Attend to precision and reasonableness</i> when adding, subtracting, multiplying, and dividing multi-digit whole numbers and decimals <i>flexibly, accurately, and efficiently</i>. (MP 6)
Number Systems (NS)	6.NS.4	Find the greatest common factor between two whole numbers 1 to 100 and the least common multiples of two whole numbers 1 to 12 by making use of <i>structures and patterns</i>. Relate greatest common factors to the distributive property. (e.g., re-express $36 + 8$ as $4(9 + 2)$) (MP 7)
Number Systems (NS)	6.NS.5	Use positive and negative numbers together to represent quantities in <i>real world contexts</i>, explain the meaning of zero in <i>context</i>. <i>Communicate</i> understanding that positive and negative numbers are used together to describe quantities having opposite directions or values. (MP 2, 3)
Number Systems (NS)	6.NS.6	<i>Build and use models</i> to show positive and negative numbers on a number line and coordinate plane. Use models to order positive and negative numbers. (MP 4)
Number Systems (NS)	6.NS.7	<i>Build and use models</i> to develop the definition of absolute value. Work with absolute value <i>in and out of context</i>. (MP 2, 4)

Ratio and Proportional Relationships (RP)	6. RP. 1	<i>Clearly communicate</i> understanding of ratio relationships by using ratio language. (MP 3)
Ratio and Proportional Relationships (RP)	6. RP. 2	<i>Clearly communicate</i> understanding of the concept of a unit rate associated with a ratio and use rate language to <i>represent</i> a unit rate associated with a ratio relationship. (MP 7)
Ratio and Proportional Relationships (RP)	6. RP. 3	<i>Build and use models</i> including tables, double number lines, and/or tape diagrams to represent and reason about real-world ratio relationships with whole number quantities. (MP 4)
Ratio and Proportional Relationships (RP)	6. RP. 4	Use ratio and rate reasoning <i>as a tool</i> to make sense of and solve problems in context. (MP 5)
Ratio and Proportional Relationships (RP)	6. RP. 5	Use ratio reasoning <i>as a tool</i> to convert measurement units when given a unit conversion chart. (MP 5)
Geometry (G)	6. G. 1	Find the area of right triangles, other triangles, special quadrilaterals, and polygons <i>by composing and decomposing into rectangles, triangles and/or other shapes</i> . (MP 7)
Geometry (G)	6. G. 2	<i>Build and use nets</i> to represent 3-dimensional figures composed of rectangles and triangles. <i>Use nets as tools</i> to find the surface area of the figure. (MP 4, 5)
Geometry (G)	6. G. 3	<i>Select and use tools appropriately</i> to solve <i>real-world and decontextualized mathematical problems</i> involving surface area and volume of right rectangular prisms with fractional edge lengths. (MP 2, 5)
Geometry (G)	6. G. 4	Construct polygons on the coordinate plane given coordinates for the vertices. Use coordinates to find the length of a side joining points with the same <i>x</i> coordinate or the same <i>y</i> coordinate. Apply these techniques to <i>solve problems with and without real-world context</i> . (MP 2)
Data Science (D)	6. D. 1	<i>Formulate statistical investigative questions</i> that anticipate variability in data and how the data may impact the investigation question. (MP 1)

Data Science (D)	6.D.2	<i>Select and use tools appropriately and strategically</i> to generate, collect, and organize data. <i>Ask questions</i> about how the data were collected and whether the data are useful to answer the statistical question of interest. (MP 1, 5)
Data Science (D)	6.D.3	Create <i>precise and reasonable</i> visual representations, including histograms (with or without technology), dot plots, and box plots. <i>Justify</i> which graph or plot best represents the data. Analyze and interpret visual representations and numerical summaries for measures of center (mean and/or median) and measures of variability (mean absolute deviation and/or interquartile range). (MP 3, 6)
Data Science (D)	6.D.4	<i>Construct, justify, and communicate</i> answers to investigative questions about distributions. Consider the interpretation of the following features of distributions: center (mean and/or median), variability (mean absolute deviation and/or inter quartile range), and overall shape (symmetric or non-symmetric). Describe any striking deviations (outliers). Identify ways to refine investigative questions, data collection, visualization, or analysis. (MP 3)

Measureability			Instructional
Measurability Score (0-2)	Measurability Issue Flag	Measurability Notes	Instructional Focus Tag

1—Partially measurable / well specified	Too vague	It's not clear what is meant by "use structure to write and evaluate numerical expressions," or what "use structure to" is bringing to the standard.	Major work
2—Measurable & well specified			Major work
1—Partially measurable / well specified	Non-observable verb	Use properties of operations and understanding as tools...how would you measure that? You can iustify whv	Major work
2—Measurable & well specified			Major work
2—Measurable & well specified			Major work
2—Measurable & well specified			Major work

1—Partially measurable / well specified	Non-observable verb	Extend prior understanding is not observable.	Major work
1—Partially measurable / well specified	Too vague; Poorly specified	flexibly and efficiently	Major work
0—Not measurable or poorly specified	Non-observable verb; Poorly specified	What it means to observably "Attend to precision" is not well specified. "Flexibly" and "efficiently" are subjective and undefined, making them difficult to assess consistently without explicit criteria.	Major work
2—Measurable & well specified			Major work
2—Measurable & well specified			Major work
2—Measurable & well specified			Major work
1—Partially measurable / well specified	Poorly specified	"work with..."	Major work

1—Partially measurable / well specified	Lacks performance expectation	There are many things one could understand about ratio relationships; it's not clear here what the PE is.	Major work
1—Partially measurable / well specified	Other	"too narrow in comparison to other standards."	Major work
2—Measurable & well specified			Major work
1—Partially measurable / well specified	Lacks performance expectation	Use as a tool	Major work
2—Measurable & well specified			Supporting work
2—Measurable & well specified			Supporting work
2—Measurable & well specified			Supporting work
2—Measurable & well specified			Supporting work
2—Measurable & well specified			Supporting work
2—Measurable & well specified			Additional work

2—Measurable &
well specified

Additional work

2—Measurable &
well specified

Additional work

1—Partially
measurable /
well specified

Non-observable verb

"Consider" is not
an observable
behavior.

Additional work

Instructional Focus		Clarity & Accessibility	
Instructional Focus Notes	Clarity & Accessibility Score (0-2)	Clarity & Accessibility Issue Flag	Clarity & Accessibility Notes
	1—Partially clear and accessible	Vague/ambiguous language	Similar to the measurability issue, it is not clear what "use structure to" is bringing to the standard. "Write and evaluate numerical expressions involving whole numbers exponents" describes a clear PE that seems unnecessarily complicated by the additional ambiguous language.
	1—Partially clear and accessible	Vague/ambiguous language	The standard includes a lot of parts, and if you break them down those parts are a little strange, such as "Describe patterns of expressions to read algebraic expressions."
	2—Clear and accessible		
	2—Clear and accessible		
	2—Clear and accessible		
	2—Clear and accessible		

2—Clear and accessible

1—Partially clear and accessible

Vague/ambiguous language

The terms "flexibly, accurately, and efficiently" are subjective, making the PE unclear without examples.

1—Partially clear and accessible

Vague/ambiguous language; Insufficient guidance to understand PE

Again the terms "flexibly, accurately, and efficiently" are subjective, making the PE unclear without examples. It is also not clear what a teacher is looking for in order to assess that a student is "attending to precision and reasonableness."

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

1—Partially clear and accessible

Vague/ambiguous language; Insufficient guidance to understand PE

...to develop the definition of absolute value

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
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2—Clear and
accessible

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accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

1—Partially
clear and
accessible

Vague/ambiguous language

It is not clear what is
meant by "investigative
questions." Examples
would help.

2—Clear and
accessible

2—Clear and
accessible

1—Partially
clear and
accessible

Vague/ambiguous language

It is not clear what is
meant by "investigative
questions." Examples
would help.

DOK		Mathematical Rigor	
DOK Level (1-4)	DOK Notes	Mathematical Rigor Tag(s)	Mathematical Rigor Notes

2 Procedural Skill /
Fluency

2 Conceptual
Understanding;
Procedural Skill /
Fluency

2 Conceptual
Understanding;
Procedural Skill /
Fluency

2 Conceptual
Understanding

2 Procedural Skill /
Fluency;
Applications

2 Applications

2 Conceptual
 Understanding;
 Applications

2 Procedural Skill /
 Fluency

2 Procedural Skill /
 Fluency

2 Procedural Skill /
 Fluency;
 Conceptual
 Understanding

2 Procedural Skill /
 Fluency;
 Conceptual
 Understanding

3 Conceptual
 Understanding

3 Conceptual
 Understanding

2 Conceptual
 Understanding

2 Conceptual
 Understanding

3 Conceptual
 Understanding;
 Applications

3 Applications

2 Procedural Skill /
 Fluency;
 Applications

2 Procedural Skill /
 Fluency

2 Procedural Skill /
 Fluency;
 Conceptual
 Understanding

2 Applications;
 Procedural Skill /
 Fluency

2 Applications;
 Procedural Skill /
 Fluency

3 Applications

4 Applications

3 Conceptual
Understanding;
Applications

3 Conceptual
Understanding;
Applications

Developmental Appropriateness		
Developmental Appropriateness Score (0-2)	Developmental Appropriateness Flag	Developmental Appropriateness Notes

2—Developmentally appropriate

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Integration of Appropriate Mathematical Practices		
Math Practice Integration	Math Practice Appropriateness	Identify Better Aligned MP Connection (if any and if misaligned)

2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated 2—All named practices appropriate

2—All named practices integrated 1—Any named practices appropriate MP3

2—All named practices integrated 2—All named practices appropriate

2—All named practices integrated 2—All named practices appropriate

2—All named practices integrated 2—All named practices appropriate

2—All named practices integrated 2—All named practices appropriate

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2—All named practices integrated 2—All named practices appropriate

Mathematical Practice
Integration Notes

MP 3 includes communicating
arguments, but not just
communicating understanding.

Domain	Standard ID	Standard Text
Algebra (A)	7.A.1	Apply properties of operations as tools to add, subtract, factor and expand linear expressions with rational coefficients in different forms. (MP 5)
Algebra (A)	7.A.2	Use <i>algebraic tools</i> to solve equations and inequalities representing real-world problems of the form $px+q=r$ and $p(x+q)=r$ using positive and negative rational numbers. <i>Attend to the reasonableness</i> of the solutions. (MP 5, 6)
Algebra (A)	7.A.3	Given a context, construct equations and inequalities to <i>model</i> real-world problems of the form $px+q=r$ and $p(x+q)=r$ using positive and negative rational numbers. (MP 4)
Algebra (A)	7.A.4	<i>Build and use models</i> including tables, graphs, and equations to represent and understand the relationship between independent and dependent variables. (MP 4)
The Number System (NS)	7.NS.1	<i>Describe and represent structures, patterns and relationships</i> to define rational numbers and make connections between fraction, decimal and percent representations. of a rational number. Flexibly use the various representations of rational numbers while <i>attending to precision</i> . (MP 6, 7)
The Number System (NS)	7.NS.2	<i>Build and use models</i> including a horizontal or vertical number line diagram to extend previous understanding of addition and subtraction to add and subtract rational numbers <i>in and out of context</i> including signed decimals and fractions. (MP 2, 4)
The Number System (NS)	7.NS.3	Extend previous understanding of multiplication and division to multiply and divide rational numbers <i>in and out of context</i> . (MP 2)

The Number System (NS)	7.NS.4	<i>Flexibly, accurately, and efficiently</i> add, subtract, multiply and divide rational numbers including signed decimals and fractions <i>in and out of context. Attend to precision and reasonableness</i> of solutions. (MP 5, 6)
Ratio and Proportional Relationships (RP)	7.RP.1	Calculate unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities. Apply unit rate as a tool to <i>make and evaluate conjectures</i> about proportional relationships (MP 8)
Ratio and Proportional Relationships (RP)	7.RP.2	Understand percent of a quantity as a rate per 100. Describe and <i>represent structures and patterns</i> that connect percent to ratio. (MP 7)
Ratio and Proportional Relationships (RP)	7.RP.3	<i>Build and use models</i> including tables, graphs, double number lines, or tape diagrams to find a percent of a quantity as a rate per 100. Solve problems involving finding the whole, the part, or the percent. (MP 4) <i>Recognize structures and patterns</i> when analyzing real world contexts to determine whether two quantities have a proportional relationship. Use tables, graphs, equations, diagrams and verbal descriptions to justify whether a relationship is proportional. (MP 3, 7)
Ratio and Proportional Relationships (RP)	7.RP.4	<i>Build and use models</i> (tables, graphs, equations, diagrams and verbal descriptions) to represent proportional relationships and identify and interpret the constant of proportionality. (MP 4)
Ratio and Proportional Relationships (RP)	7.RP.5	Use proportional relationships <i>as a tool</i> to solve multi-step and percent problems such as simple interest, tax, markups and markdowns, gratuities and commissions, fees, and percent increase and decrease. (MP 5)
Ratio and Proportional Relationships (RP)	7.RP.6	

Ratio and Proportional Relationships (RP)	7.RP.7	<i>Interpret</i> the meaning of a point (x,y) on the graph of a proportional relationship in a given context. Connect and <i>interpret the relationship</i> between the points (0, 0) and (1, r) where r is the unit rate. (MP 4, 7)
Geometry (G)	7.G.1	<i>Select and use tools appropriately and strategically</i> (e.g., a compass, straightedge, dynamic geometry software) to draw and accurately describe scaled geometrical figures. <i>Utilize the underlying structure</i> of scale drawings to understand scale factor and solve real world and mathematical problems. (MP 5, 7)
Geometry (G)	7.G.2	<i>Select and use tools appropriately and strategically</i> to create triangles from given conditions to determine whether a unique triangle, more than one triangle, or no triangle can be formed. (MP 5)
Geometry (G)	7.G.3	<i>Flexibly, accurately and efficiently solve real-world and mathematical problems</i> involving perimeter and area of circles, triangles, quadrilaterals and polygons as well as surface area of right prisms. (MP 2, 6)
Geometry (G)	7.G.4	<i>Describe and use the relationship</i> between the area of a base of a right-prism and its volume to solve real world and mathematical problems. (MP 7)
Geometry (G)	7.G.5	<i>Describe and represent structures, patterns, and relationships</i> related to supplementary, complementary, vertical, and adjacent angles to solve for unknown angle measures in a figure. (MP 7)
Data Science (D)	7.D.1	<i>Formulate statistical investigative questions</i> that anticipate variability in data collected from a random sample of a population. (MP 1)
Data Science (D)	7.D.2	Generate, collect, and organize randomly sampled data that is representative of the population <i>using tools appropriately</i> . Explain why random sampling is more likely to produce representative samples and support valid inferences <i>using clear and reasonable arguments</i> . (MP 3 5)

Data Science (D)	7.D.3	Create <i>precise and reasonable</i> visual representations, including histograms (with technology), dot plots, and box plots. Analyze and interpret visual representations and numerical summaries for measures of center (mean and/or median) and measures of variability (mean absolute deviation and/or inter-quartile range). (MP 6) <i>Construct, justify, and communicate</i> answers to investigative questions about a population and comparisons about two different populations.
Data Science (D)	7.D.4	Compare features such as center (mean and median), variability (mean absolute deviation and inter-quartile range) and overall shape (symmetric or nonsymmetric). (MP 3)
Data Science (D)	7.D.5	<i>Communicate clear understanding</i> that the probability of a chance event is the likelihood of an event occurring and is expressed as a number between 0 and 1. (MP 3)
Data Science (D)	7.D.6	Estimate the probability of a chance event by observing its long-run relative frequency. Given the probability, predict and <i>evaluate the reasonableness</i> of approximate relative frequencies. (MP 8)
Data Science (D)	7.D.7	<i>Build and use probability models</i> such as organized lists, tables, tree diagrams, and simulations to find or estimate probabilities of simple and compound events. (MP 4) <i>Build a probability model and use it</i> to find probabilities of events. Compare probabilities from a model to observed frequencies. If the agreement is not good, explain possible sources for discrepancy. (e.g., find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the simulation appear to be equally likely based on the observed frequencies?) (MP 4)
Data Science (D)	7.D.8	

Measureability			Instructional
Measurability Score (0-2)	Measurability Issue Flag	Measurability Notes	Instructional Focus Tag
2—Measurable & well specified			Major work
2—Measurable & well specified			Major work
2—Measurable & well specified			Major work
1—Partially measurable / well specified	Too vague	Use of the word understand.	Major work
1—Partially measurable / well specified	Multiple expectations; Too vague	"Flexibly use" is not measurable.	Major work
2—Measurable & well specified			Major work
1—Partially measurable / well specified	Too vague	Extend previous understanding	Major work

1—Partially measurable / well specified	Too vague; Poorly specified	What it means to observably "Attend to precision and reasonableness" is not well specified. "Flexibly" and "efficiently" are subjective and undefined, making them difficult to assess consistently without explicit criteria.	Major work
1—Partially measurable / well specified	Multiple expectations; Non-observable verb	"Apply unit rate as a tool" vague.	Major work
1—Partially measurable / well specified	Non-observable verb	"Understand" is an internal cognitive process and not observable. The observable behavior is not specified.	Major work
2—Measurable & well specified			Major work
2—Measurable & well specified			Major work
2—Measurable & well specified			Major work
2—Measurable & well specified			Major work

1—Partially measurable / well specified	Too vague	"connect"	Major work
1—Partially measurable / well specified	Non-observable verb	if understand is meant as part of the student expectation in the 2nd sentence, then "utilize the underlying structure of scale drawings to understand" is non-	Supporting work
2—Measurable & well specified			Supporting work
1—Partially measurable / well specified	Too vague	flexibly and efficiently	Supporting work
2—Measurable & well specified			Supporting work
2—Measurable & well specified			Supporting work
2—Measurable & well specified			Supporting work
1—Partially measurable / well specified	Too vague	"using tools appropriately" is difficult to measure.	Supporting work

2—Measurable &
well specified

Supporting work

2—Measurable &
well specified

Supporting work

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well specified

Supporting work

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well specified

Supporting work

2—Measurable &
well specified

Supporting work

Instructional Focus		Clarity & Accessibility	
Instructional Focus Notes	Clarity & Accessibility Score (0-2)	Clarity & Accessibility Issue Flag	Clarity & Accessibility Notes

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

1—Partially clear and accessible

Vague/ambiguous language; Poorly specified

describe and represent structures, patterns and relationships to define rational numbers" is vague in a way that makes the PE unclear and thus not possible to measure. It is not clear what

2—Clear and accessible

2—Clear and accessible

1—Partially clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE	Similar to the measurability issue, "Attend to precision and reasonableness" is vague in terms of what the PE is. Same with "flexibly" and "efficiently".
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1—Partially
clear and
accessible

Vague/ambiguous language

It is not clear what is
meant by "investigative
questions." Examples
would help.

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

It is not clear what is
meant by "investigative
questions." Examples
would help.

2—Clear and
accessible

1—Partially
clear and
accessible

Vague/ambiguous language

"long-run relative
frequency."

2—Clear and
accessible

2—Clear and
accessible

DOK		Mathematical Rigor	
DOK Level (1-4)	DOK Notes	Mathematical Rigor Tag(s)	Mathematical Rigor Notes
2		Procedural Skill / Fluency	
2		Procedural Skill / Fluency; Applications	
2		Applications	
2		Conceptual Understanding	
2		Conceptual Understanding	
2		Conceptual Understanding	
2		Procedural Skill / Fluency; Conceptual Understanding	

2 Procedural Skill /
 Fluency

2 Procedural Skill /
 Fluency;
 Conceptual
 Understanding

2 Conceptual
 Understanding

3 Procedural Skill /
 Fluency;
 Applications

3 Conceptual
 Understanding

3 Conceptual
 Understanding

2 Applications

2 Conceptual
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2 Procedural Skill /
 Fluency;
 Applications

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3 Applications

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2 Procedural Skill /
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 Applications

3 Conceptual
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 Applications

3 Conceptual
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2 Conceptual
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 Applications

2 Conceptual
 Understanding;
 Applications

2 Procedural Skill /
 Fluency;
 Conceptual
 Understanding;
 Applications

Developmental Appropriateness		
Developmental Appropriateness Score (0-2)	Developmental Appropriateness Flag	Developmental Appropriateness Notes

2—Developmentally appropriate

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Integration of Appropriate Mathematical Practice		
Math Practice Integration	Math Practice Appropriateness	Identify Better Aligned MP Connection (if any and if misaligned)
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	
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2—All named practices integrated 2—All named practices appropriate

1—Any named practices integrated 2—All named practices appropriate MP7

2—All named practices integrated 2—All named practices appropriate

2—All named practices integrated 2—All named practices appropriate

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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	0—No practices appropriate
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MP6

2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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Mathematical Practice
Integration Notes

Does MP 7 work better
here than MP 6?" Describe
and represent
structures. "

Perhaps MP6: Students
must use precise
mathematical language
("likelihood,"
"probability") and
accurately represent
probabilities within the
appropriate range.
The phrase "communicate
clear understanding"
suggests precise
mathematical
communication.

Domain	Standard ID
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Algebra (A) 8. A. 1

Algebra (A) 8. A. 2

Algebra (A) 8. A. 3

Algebra (A) 8. A. 4

Algebra (A) 8. A. 5

Algebra (A) 8. A. 6

Algebra (A) 8. A. 7

Algebra (A) 8. A. 8

Algebra (A) 8. A. 9

The Number System (NS) 8. NS. 1

The Number System (NS) 8. NS. 2

The Number System (NS) 8. NS. 3

The Number System (NS) 8.NS.4

Functions (F) 8.F.1

Functions (F) 8.F.2

Functions (F) 8.F.3

Functions (F) 8.F.4

Functions (F) 8.F.5

Geometry (G) 8.G.1

Geometry (G)

8. G. 2

Geometry (G)

8. G. 3

Geometry (G)

8. G. 4

Geometry (G) 8. G. 5

Geometry (G) 8. G. 6

Data Science (D) 8. D. 1

Data Science (D) 8. D. 2

Data Science (D) 8. D. 3

Data Science (D) 8. D. 4

Data Science (D) 8. D. 5

Data Science (D)

8.D.6

Data Science (D)

8.D.7

Standard Text	Measureability	
	Measurability Score (0-2)	Measurability Issue Flag
<i>Use structure and patterns</i> to develop and apply the properties of integer exponents to generate equivalent expressions. (MP 7) <i>Use structure and patterns</i> of operations to simplify and evaluate algebraic expressions, including those involving rational coefficients, exponents, and polynomial terms. (MP 7) <i>Use algebraic tools strategically</i> to represent solutions to equations in the form $x^2 = p$ and $x^3 = p$. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. (MP 5)	2—Measurable & well specified 1—Partially measurable / well specified 2—Measurable & well specified	Non-observable verb
<i>Represent the structure and patterns</i> of numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and express how many times as much one is than the other. (MP 7)	2—Measurable & well specified	
<i>Apply structures, properties and patterns</i> of exponents to perform all four operations with scientific notation. Interpret scientific notation in terms of a context. (MP 2, 7)	2—Measurable & well specified	

<i>Represent patterns</i> by graphing proportional relationships and interpret the unit rate as the slope of the graph. <i>Use the structure</i> of similar triangles to explain why the slope is the same between any two distinct points on a non-vertical line in the coordinate plane. (MP 7)	2—Measurable & well specified	
Represent and compare linear relationships using graphs, tables, and equations <i>with or without context</i>. Interpret slope and intercepts in context. (MP 2)	2—Measurable & well specified	
<i>Use structures, patterns and properties</i> of equivalence to solve symbolic and real-world single-variable equations and inequalities with rational number coefficients and justify algebraically. Solve absolute value equations in the form $px +q=c$ or $px+q =c$. (MP 7) <i>Build and use graphic models</i> to analyze and solve systems of two linear equations in two variables and interpret their solutions. Identify systems that have zero, one, and infinite solutions with or without context. (MP 2 4)	1—Partially measurable / well specified	Multiple expectations; Non-observable verb
<i>Describe and represent structures and patterns</i> comparing the set of irrational numbers to the set of rational numbers, in order to determine properties of irrational numbers. (MP 7)	1—Partially measurable / well specified	Poorly specified
Find rational approximations of irrational numbers, <i>attending to precision and reasonableness</i>. Use a number line diagram as a model to compare values of irrational numbers. (MP 4 6)	2—Measurable & well specified	
Estimate the value of expressions containing irrational numbers, <i>with and without a context</i>. (MP 2)	2—Measurable & well specified	

<i>Justify</i> why sums and products of rational numbers are rational, that the sum of a rational number and an irrational number is irrational, and that the product of a nonzero rational number and an irrational number is irrational. <i>Build and use models</i> to connect to physical situations. (MP 3, 4)	1—Partially measurable / well specified	Multiple expectations
<i>Construct and communicate clear arguments</i> as to whether a relation is a function. (MP 3)	2—Measurable & well specified	
Given a <i>representation</i> (verbal description, table, two coordinate pairs, or an equation of $y=mx+b$), determine and interpret the rate of change and the initial value <i>in and out of context</i>. (MP 2, 4)	2—Measurable & well specified	
Construct a function to <i>model</i> a linear relationship between two quantities when given a verbal description, a table, and a graph. (MP 4)	2—Measurable & well specified	
Given a graph of two quantities (linear and non-linear), <i>describe and represent</i> features of the relationship, including intervals where the function is increasing or decreasing, the location of its maximum and minimum values. <i>Build graphic models</i> that satisfy given qualitative features. (MP 4, 7)	2—Measurable & well specified	
Use multiple representations (tables, graphs, equations, diagrams and verbal descriptions) to compare the properties of linear and nonlinear functions with and without a context. <i>Justify</i> whether a function is linear or non-linear. (MP 3)	2—Measurable & well specified	
Use rigid transformations to establish a definition of congruent figures. <i>Justify</i> that two shapes are congruent through the use of rigid transformations. <i>Make and evaluate conjectures</i> about attributes of, rotations, reflections, and translations with and without coordinates. (MP 3, 8)	1—Partially measurable / well specified	Too broad

Use transformations (dilation, translation, reflection and rotation) to establish a definition of similar figures. <i>Justify</i> that two shapes are similar through the use of transformations. <i>Make and examine conjectures</i> about attributes of dilations, with and without coordinates. (MP 3, 8)	1—Partially measurable / well specified	Too vague; Poorly specified
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<i>Ask questions to determine</i> the difference between congruence and similarity in terms of transformations. <i>Clearly communicate</i> the distinction between congruent and similar figures. (MP 1, 3)	1—Partially measurable / well specified	Too vague
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<i>Create and communicate informal arguments</i> that establish angle relationships for parallel lines cut by a transversal and angle relationships for triangles, including the angle sum and exterior angle. (MP 3)	2—Measurable & well specified	
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Use the Pythagorean theorem when solving problems with right triangles and finding distance between two coordinate points. <i>Use geometric structures and numerical patterns</i> to understand and explain proofs of the Pythagorean Theorem. (MP 7)	1—Partially measurable / well specified	Poorly specified
Solve real-world and mathematical problems <i>with or without a context</i> involving right triangles, distance, and volume of cones, cylinders, and spheres. (MP 2)	2—Measurable & well specified	
<i>Ask questions</i> about bivariate data sets (quantitative and categorical) to investigate patterns of associations between two quantities. (MP 1)	1—Partially measurable / well specified	Too vague; Poorly specified
<i>Select and use tools appropriately and strategically</i> to identify existing data sets or generate, collect, and organize data to investigate associations between two quantities. (MP 5)	1—Partially measurable / well specified	Too vague
Explore, describe and compare variability in bivariate data for quantitative variables by creating scatter plots. For scatter plots that suggest a linear association, <i>represent the relationship</i> with a linear equation, and informally assess the line of fit by judging the closeness of the data points to the line. (MP 7)	1—Partially measurable / well specified	Too vague
<i>Describe, represent and explain patterns</i> of association such as clustering, positive or negative association, linear or nonlinear association and effects of outliers. (MP 7)	2—Measurable & well specified	
Answer investigative questions by interpreting quantitative bivariate data. <i>Construct, justify, and communicate clear and reasonable arguments</i> regarding the data. Use the equation of a linear model to solve problems in the context of bivariate measurement data, including interpreting the slope and intercept. Identify ways to refine the question, data collection, visualization, or analysis. (MP 3, 4)	2—Measurable & well specified	

Explore, describe and compare variability in bivariate data for categorical variables by constructing two-way tables. Calculate and interpret relative frequencies for rows or columns in a two-way table. <i>Attend to precision and reasonableness.</i> (MP 6)	1—Partially measurable / well specified	Non-observable verb
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<i>Construct, analyze, and communicate clear and reasonable arguments</i> to answer investigative questions about the association between categorical bivariate data. Use the relative frequencies calculated for rows or columns as evidence to justify and describe possible associations between the two variables. (MP 3)	1—Partially measurable / well specified	Too vague
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	Instructional Focus		
Measurability Notes	Instructional Focus Tag	Instructional Focus Notes	Clarity & Accessibility Score (0-2)

Major work

2—Clear and accessible

Use structure and patterns...

Major work

2—Clear and accessible

Major work

2—Clear and accessible

Major work

1—Partially clear and accessible

Major work

2—Clear and accessible

	Major work	2—Clear and accessible
	Major work	2—Clear and accessible
Use structure and patterns seems non-observable.	Major work	2—Clear and accessible
	Major work	2—Clear and accessible
Key parts of the performance are high-level and open to interpretation, especially: "describe and represent structures and patterns" (unclear what counts as sufficient representation or description) "determine properties of irrational numbers" (properties are not specified, nor how they should be evidenced)	Supporting work	1—Partially clear and accessible
	Supporting work	2—Clear and accessible
	Supporting work	2—Clear and accessible

This standard includes multiple expectations that must be assessed via different performances.	Supporting work	1—Partially clear and accessible
	Major work	2—Clear and accessible
	Major work	2—Clear and accessible
	Major work	2—Clear and accessible
	Major work	2—Clear and accessible
	Major work	2—Clear and accessible
Some components are too broad and high-inference, particularly: “make and evaluate conjectures about attributes of rotations, reflections, and translations” (unclear what counts as	Major work	2—Clear and accessible

The standard includes clear, observable expectations: Use transformations (including dilation) to define similarity Justify similarity through transformations However, the measurability is weakened by the less well-specified component: "Make and examine conjectures about attributes of dilations" is high-inference, since it does not specify what counts as an acceptable conjecture, level of reasoning, or evidence of "examining." The inclusion of "with and without the standard includes some clear expectations: Students must communicate the distinction between congruent and	Major work	2—Clear and accessible
	Major work	2—Clear and accessible
	Major work	2—Clear and accessible

Observable, measurable parts: Use the Pythagorean Theorem to solve right-triangle problems Find distance between two coordinate points → These are fully performance-based	Major work	2—Clear and accessible
	Additional work	2—Clear and accessible
key components are high-inference and loosely defined: "ask questions" is not specified in terms of quantity, quality, or type of questions	Supporting work	1—Partially clear and accessible
select and use tools appropriately	Supporting work	2—Clear and accessible
Explore not measurable	Supporting work	2—Clear and accessible
	Supporting work	2—Clear and accessible
	Supporting work	1—Partially clear and accessible

Explore not
measurable

Supporting work

2—Clear and
accessible

analyze too vague

Supporting work

1—Partially
clear and
accessible

Clarity & Accessibility		DOK	
Clarity & Accessibility Issue Flag	Clarity & Accessibility Notes	DOK Level (1-4)	DOK Notes

2

2

2

Vague/ambiguous language; Insufficient guidance to understand PE

The language is dense and introduces multiple ideas within a single sentence (structure/patterns, scientific notation-like form, estimation, and multiplicative comparison). While each component is mathematically appropriate, the phrasing requires interpretation to understand how the pieces connect in practice. In particular, "represent the structure and patterns of numbers expressed in the form of a single digit times an integer power of 10" is precise but not easily accessible without unpacking.

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	Phrases like "describe and represent structures and patterns" and "determine properties of irrational numbers" are broad and do not specify what representations are expected or what level of property identification is sufficient. Additionally, the expectation is compressed into a single statement that blends comparison, representation, and property derivation, which reduces clarity	
Vague/ambiguous language		2

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2

Insufficient guidance to understand PE; Other	ine standard is dense and combines multiple distinct expectations (proof/justification, properties of number systems, and modeling applications) in a single statement. While the mathematical	3
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Vague/ambiguous language the phrasing is fairly
abstract and relies
heavily on broad
constructs such as "ask
questions," "investigate
patterns," and
"associations between
two quantities," without

2

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2

2

Vague/ambiguous language It is not clear what is
meant by "investigative
questions." Examples
would help.

3

2

Vague/ambiguous language	It is not clear what is meant by "investigative questions." Examples would help.	3
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Mathematical Rigor		Developmental Appropriateness	
Mathematical Rigor Tag(s)	Mathematical Rigor Notes	Developmental Appropriateness Score (0-2)	Developmental Appropriateness Flag
Conceptual Understanding; Procedural Skill / Fluency		2—Developmentally appropriate	
Procedural Skill / Fluency		2—Developmentally appropriate	
Conceptual Understanding; Procedural Skill / Fluency		2—Developmentally appropriate	
Conceptual Understanding		2—Developmentally appropriate	
Procedural Skill / Fluency; Applications		2—Developmentally appropriate	

Conceptual
Understanding

2—Developmentally
appropriate

Conceptual
Understanding

2—Developmentally
appropriate

Procedural Skill /
Fluency

2—Developmentally
appropriate

Conceptual
Understanding;
Applications

2—Developmentally
appropriate

Conceptual
Understanding

2—Developmentally
appropriate

Procedural Skill /
Fluency;
Conceptual
Understanding

2—Developmentally
appropriate

Procedural Skill /
Fluency

2—Developmentally
appropriate

Conceptual
Understanding

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Conceptual
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Conceptual
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Conceptual
Understanding;
Applications

2—Developmentally
appropriate

Applications

2—Developmentally
appropriate

Applications

2—Developmentally
appropriate

Applications

2—Developmentally
appropriate

Procedural Skill /
Fluency;
Applications

2—Developmentally
appropriate

Conceptual
Understanding

2—Developmentally
appropriate

Conceptual
Understanding;
Applications

2—Developmentally
appropriate

Procedural Skill /
Fluency;
Applications

2—Developmentally
appropriate

Conceptual
Understanding;
Applications

2—Developmentally
appropriate

ss	Integration of Approp	
Developmental Appropriateness Notes	Math Practice Integration	Math Practice Appropriateness

2—All named practices
integrated

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practices appropriate

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1—Any named practices integrated	2—All named practices appropriate
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2—All named practices 2—All named
integrated practices appropriate

2—All named practices 2—All named
integrated practices appropriate

riate Mathematical Practices

Identify Better Aligned
MP Connection (if any and
if misaligned)

Mathematical Practice
Integration Notes

MP4; MP5

Consider adding MP5
(tools). One could argue
for MP 4, also.

MP3

Add MP3

Domain	Standard ID	Standard Text
Algebra (A)	S1.A.1	<i>Use the structure</i> of linear expressions and exponential expressions with integer exponents to identify parts of the expression and interpret their meaning in context. Interpret complicated expressions (such as $P(1+r)^n$) by viewing one or more of their parts as a single entity. (MP 7)
Algebra (A)	S1.A.2	<i>Build symbolic models</i> of linear equations and inequalities, and use them to solve problems <i>in and out of context</i> . (MP 3, 4)
Algebra (A)	S1.A.3	Use algebraic properties of equality <i>as tools</i> to rearrange formulas to isolate a quantity of interest. (MP 5)
Algebra (A)	S1.A.4	Solve linear equations and inequalities <i>using algebraic tools</i> , starting from the assumption that a solution exists. Communicate clear arguments for equations that do not have one unique solution and justify the results. Interpret solutions and use both inequality and interval notation. (MP 3, 5)
Algebra (A)	S1.A.5	Solve systems of linear equations <i>using algebraic tools</i> . Understand and <i>justify</i> how equations are manipulated while maintaining the consistency of the system. (MP 3, 5)

Algebra (A)	S1.A.6	Interpret whether a solution of a system of linear equations and inequalities is viable or non-viable <i>using graphic and analytic models. Use models</i> of systems of linear equations and inequalities to interpret whether a solution is viable or non-viable. (MP 4)
Algebra (A)	S1.A.7	<i>Build and use graphic models</i> to analyze and solve systems of two linear equations as well as systems of one linear equation and one exponential equation in two variables and interpret their solutions. (MP 4)
Algebra (A)	S1.A.8	<i>Build and use graphic models</i> to show the solutions to a linear inequality in two variables as a half-plane, and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes. (MP 4)
Functions (F)	S1.F.1	<i>Construct and communicate clear arguments</i> to justify whether a relation is a function. (MP 3)
Functions (F)	S1.F.2	<i>Understand the structure</i> of function notation, if f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x . The graph of f is the graph of the equation $y = f(x)$. (MP 7)
Functions (F)	S1.F.3	Evaluate functions for inputs in their domains and interpret statements that use function notation <i>in terms of a context</i> . (MP 2)

		<i>Build and use</i> explicit and recursive equations to model arithmetic and geometric sequences using function notation. <i>Describe and represent</i> the domain of these models as a subset of the integers. (MP 4, 7)
Functions (F)	S1.F.4	

		Understand and interpret the features of a function represented graphically, numerically and symbolically using interval notation and inequalities <i>by applying and removing context</i> . Focus on these key features: domain, range, intervals of increase and/or decreasing, location of absolute maximum and/or absolute minimum, and intercepts. <i>Build graphic models</i> that satisfy given key features. (MP 2, 4)
Functions (F)	S1.F.5	

Functions (F)	S1.F.6	<i>Build representations</i> that show key features of linear and exponential functions expressed symbolically. <i>Select and use appropriate tools</i> to model with and without technology. (MP 4, 5)
Functions (F)	S1.F.7	Compare and contrast the properties of linear and exponential functions (represented in different ways). <i>Formulate and ask questions</i> to highlight the similarities and differences between the functions. (MP 1)
Functions (F)	S1.F.8	<i>Build</i> a function that models linear or exponential relationships. Appropriately use explicit and recursive rules to model these relationships and translate between the two forms. (MP 4)
Functions (F)	S1.F.9	<i>Construct arguments</i> that <i>use the structures and patterns</i> of relationships to connect arithmetic sequences to linear functions and geometric sequences to exponential functions. (MP 3, 7)
Functions (F)	S1.F.10	<i>Use structures and patterns</i> to identify the effect of k on the graph when replacing $f(x)$ by $f(x) + k$. Explore specific values of k for linear and exponential functions in and out of context. (MP 7)

Functions (F)	S1.F.11	<i>Communicate clear and reasonable arguments to distinguish between situations that can be modeled with linear functions, exponential functions, or neither. Connect the structure of linear and exponential functions with their parameters, ($y=mx+b$, $y=bx(a)$). Justify that a quantity increasing exponentially eventually exceeds a quantity increasing linearly. (MP 3, 7)</i>
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Geometry (G)	S1.G.1	<i>Describe and represent the underlying structure of translations, rotations and reflections, in terms of angles, circles, perpendicular lines, parallel lines, and line segments. (MP 7)</i>
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Geometry (G)	S1.G.2	<i>Construct and clearly communicate definitions of the rigid transformations to show that these transformations are functions that take points in the plane as inputs and give corresponding points as outputs. (MP 3)</i>
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Geometry (G)	S1.G.3	<i>Select and use tools to strategically perform rigid transformations. Attend to precision when identifying and describing the transformation or the sequence of transformations to determine whether or not two figures are congruent. Understand that the image created from a rigid transformation or a sequence of rigid transformations is congruent to the pre-image. (MP 5, 6)</i>
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Geometry (G)	S1.G.4	<i>Construct and communicate clear and reasonable arguments about reflection and rotational symmetries of parallelograms and regular polygons. Use reflections and rotations to informally justify attributes of parallelograms including rhombus, rectangles and squares. (MP 3)</i>
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Geometry (G)	S1.G.5	Precisely construct geometric objects including equilateral triangle, rhombus, square, parallel line, perpendicular bisector, and angle bisector. <i>Communicate clearly</i> about the use of geometric construction tools and analyze the underlying structure of geometric objects as revealed by the tools. (MP 3) <i>Construct, justify and communicate clear arguments</i> that show how the criteria for triangle congruence (ASA, SAS, SSS) can be established using the definition of congruence in terms of rigid motions. (MP 3) <i>Justify</i> whether or not a quadrilateral has the attributes of a square, rectangle, rhombus or parallelogram. Connect the Pythagorean Theorem to the distance formula and utilize slope along with distance as a means for <i>justification</i>. (MP 3)
Geometry (G)	S1.G.6	
Geometry (G)	S1.G.7	
Data Science (D)	S1.D.1	<i>Ask statistical questions</i> to investigate situations that can be explored using random samples from populations to make inferences about differences between two populations or associations between two quantitative variables. <i>Explain and justify</i> the distinction between correlation and causation. (MP 1, 3)
Data Science (D)	S1.D.2	<i>Select the appropriate statistical tools</i> to create a data collection plan. Collect and organize primary data for the statistical investigative question of interest or determine the validity that the data collected is useful to answer the statistical question of interest when using secondary data. (MP 5)

Data Science (D)	S1.D.3	Compare two or more distributions with precision by selecting graphical displays (dot plots, histograms, and modified box plots to show outliers) that highlight features of interest. Analyze data by comparing measures of center (mean and median) and measures of variability (range, inter-quartile range and standard deviation) that are appropriate for the shape (skew, symmetry, outliers, modes) of the data distribution. Recognize how standard deviation builds on the mean absolute deviation and is another measure of how data values vary in a distribution. (MP 6) Analyze data to explore the association between two quantitative variables by using a scatterplot to determine and describe patterns of association such as clustering, positive or negative association, linear or nonlinear association, and effects of outliers. Use technology to find and interpret the correlation coefficient and use it to assess the strength of the linear relationship. <i>Attend to precision and reasonableness</i> with calculations. (MP 6)
Data Science (D)	S1.D.4	
Data Science (D)	S1.D.5	Analyze and use statistical evidence to <i>evaluate results</i> and answer statistical investigative questions about the differences between two or more population parameters. Identify ways to refine the question, data collection, visualization, or analysis. (MP 8)
Data Science (D)	S1.D.6	<i>Justify</i> statistical reasoning to evaluate results from analyses to answer the statistical investigative question about associations between two quantitative variables. For scatter plots that suggest a linear association, represent the relationship with a line of best fit and use the model of the linear equation to solve problems, including interpreting the slope and intercept in the context of the data. <i>Justify</i> statistical reasoning and results to others in a variety of formats including verbal, written, and visual. (MP 3, 8)

Matrices (M)	S1.M.1	Add, subtract, and multiply matrices of appropriate dimensions <i>using algebraic tools</i> for smaller matrices and technology for larger matrices. (MP 5)
Matrices (M)	S1.M.2	Use matrices to represent and manipulate data (e.g., to represent payoffs or incidences relationships in a network). Multiply matrices by scalars to produce new matrices and <i>make sense</i> of this product by connecting it with and without a context. (MP 2, 4)
Matrices (M)	S1.M.3	<i>Communicate</i> understanding that, unlike multiplication of numbers, matrix multiplication for square matrices is not a commutative operation, but still satisfies the associative and distributive properties. (MP 3)
Matrices (M)	S1.M.4	Communicate understanding that the zero and identity matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers. The determinant of a square matrix is nonzero if and only if the matrix has a multiplicative inverse. (MP 3)
Matrices (M)	S1.M.5	Use 2x2 matrices to <i>model</i> transformations of the plane, and <i>interpret</i> the absolute value of the determinant in terms of area. (MP 4, 7)
Matrices (M)	S1.M.6	<i>Model</i> a system of linear equations as a single-matrix equation in a vector variable. (MP 4)

Matrices (M)	S1.M.7	Solve systems of linear equations up to three variables using matrix row reduction and technology <i>as tools</i> . (MP 5)
Matrices (M)	S1.M.8	Find the inverse of a matrix if it exists <i>using technology or algebraic tools</i> , and use the inverse to solve systems of linear equations (using technology for matrices of dimensions 3x3 or greater). (MP 5)

Measureability			Instructional
Measurability Score (0-2)	Measurability Issue Flag	Measurability Notes	Instructional Focus Tag

2—Measurable & well specified			Widely applicable prerequisite
2—Measurable & well specified			Widely applicable prerequisite
2—Measurable & well specified			Widely applicable prerequisite
2—Measurable & well specified		The multiple expectations in this standard are tightly related.	Widely applicable prerequisite
2—Measurable & well specified			Widely applicable prerequisite

2—Measurable & well specified	Widely applicable prerequisite
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2—Measurable & well specified	Widely applicable prerequisite
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2—Measurable & well specified	Widely applicable prerequisite
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2—Measurable & well specified	Widely applicable prerequisite
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1—Partially measurable / well specified	Non-observable verb	Understand is a non-observable verb; it is not clear what the performance expectation is for proficiency.	Widely applicable prerequisite
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2—Measurable & well specified	Widely applicable prerequisite
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2—Measurable &
well specified

Widely applicable
prerequisite

1—Partially
measurable /
well specified

Non-observable verb

"Understand" is a non-observable
verb; the standard also does not
specify what a student should
understand about the features of
a function.

Widely applicable
prerequisite

1—Partially measurable / well specified	Too vague	The measurability issues here are related to the clarity of the language.	Widely applicable prerequisite
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2—Measurable & well specified			Widely applicable prerequisite
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1—Partially measurable / well specified	Multiple expectations	These are really distinct PEs that should be assessed separately	Widely applicable prerequisite
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2—Measurable & well specified			Widely applicable prerequisite
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1—Partially measurable / well specified	Multiple expectations; Non-observable verb	Use and explore are non-observable verbs	Widely applicable prerequisite
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1—Partially measurable / well specified	Multiple expectations	Specifying the relation of the 2nd and 3rd performances to the 1st would be helpful.	Widely applicable prerequisite
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2—Measurable & well specified			Widely applicable prerequisite
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1—Partially measurable / well specified	Too vague	It is not clear what is meant by "construct definitions of the rigid transformations"; while being able to describe and use the definitions makes sense, actually coming up with the definitions of rigid transformations is probably not appropriate work for S1.	Widely applicable prerequisite
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0—Not measurable / well specified	Too vague; Non-observable verb; Poorly specified	"Select and use tools to strategically perform rigid transformation" is poorly specified; it is not clear what tools students should use or how "strategically" would be measured in an assessment item. "Attend to precision" and "understand" are not observable, so the PEs are again poorly specified.	Widely applicable prerequisite
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0—Not measurable / well specified	Too vague; Poorly specified	clear and reasonable is subjective; it isn't clear how proficiency would be judged. Also, what arguments would students be making about reflection and rotational symmetries of polygons? The PE is not specified. Finally, what	Widely applicable prerequisite
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1—Partially measurable / well specified	Poorly specified	It is not clear what tools students are expected to use or what revealed underlying structure they should be communicating about.	Widely applicable prerequisite
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2—Measurable & well specified			Widely applicable prerequisite
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2—Measurable & well specified			Widely applicable prerequisite
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1—Partially measurable / well specified	Too vague; Multiple expectations	"Ask statistical questions to investigate situations that can be explored using random samples from populations..." is fairly vague. The two PEs are not unrelated, but distinct performances.	Widely applicable prerequisite
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1—Partially measurable / well specified	Multiple expectations; Too broad; Poorly specified	"Select the appropriate statistical tools to create a data collection plan" is not specific about the expectations for students. The overall standard is exceptionally broad, covering a wide range of performances.	Widely applicable prerequisite
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1—Partially measurable / well specified	Multiple expectations; Non- observable verb	Recognize is a non-observable verb	Widely applicable prerequisite
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1—Partially measurable / well specified	Multiple expectations; Non- observable verb	"to explore the association" is non-observable	Widely applicable prerequisite
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0—Not measurable / well specified	Poorly specified; Too vague; Too broad	"Analyze and use statistical evidence to evaluate results" is very general; it is not clear exactly what is expected from the student. "differences between two or more population parameters" is also vague an poorly specified. "Identify ways to refine the question, data collection, visualization, or analysis" is also extremely broad and poorly specified.	Widely applicable prerequisite
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1—Partially measurable / well specified	Multiple expectations; Too broad	"justify statistical reasoning" is very broad	Widely applicable prerequisite
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2—Measurable & well specified		Appropriate supporting work
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1—Partially measurable / well specified	Multiple expectations; Non- observable verb	"Make sense" is not observable; it is not clear what behavior teachers would be looking for to know that students had made sense of scalar products. (It is also not clear grammatically what is meant by "connecting it with and without a context," so not clear how this would be measured.)	Appropriate supporting work
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2—Measurable & well specified		Appropriate supporting work
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2—Measurable & well specified		Appropriate supporting work
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2—Measurable & well specified		Appropriate supporting work
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2—Measurable & well specified		Appropriate supporting work
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2—Measurable &
well specified

Appropriate
supporting work

2—Measurable &
well specified

Appropriate
supporting work

Instructional Focus	Clarity & Accessibility		
Instructional Focus Notes	Clarity & Accessibility Score (0-2)	Clarity & Accessibility Issue Flag	Clarity & Accessibility Notes

2—Clear and accessible

1—Partially clear and accessible

Mathematical error/imprecise usage of mathematical term(s)

"Build symbolic models of linear equations and inequalities" is redundant; linear equations and inequalities ARE the symbolic models of situations involving linear relationships.

2—Clear and accessible

1—Partially clear and accessible

Mathematical error/imprecise usage of mathematical term(s); Unclear grammar/typo(s)

"Communicate clear arguments for equations" does not make grammatical or mathematical sense, and is also redundant with "justify the results." We suspect the intent is something like "Identify linear equations and inequalities that do not have one unique solution and justify

2—Clear and accessible

1—Partially clear and accessible	Unclear grammar/typo(s)	"Interpret whether a solution of a system of linear equations and inequalities is viable or non-viable" is not grammatically correct. We suspect the intent is something like "Determine whether a solution of a system of linear equations and inequalities is viable or non-viable" or "Interpret solutions of a system of linear equations and inequalities as viable or non-viable options. "
2—Clear and accessible		
2—Clear and accessible		
2—Clear and accessible		
2—Clear and accessible		
2—Clear and accessible		

2—Clear and
accessible

2—Clear and
accessible

0—Not clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE	The first PE is unnecessarily wordy, making the meaning both ambiguous and unclear. What is the desired PE? Is it to build symbolic representations of linear and exponential functions (e.g, equations)? Or is it to generate OTHER representations of functions that have been presented symbolically? "Select and use appropriate tools to model with and without technology" is also vague/ambiguous, making the PE unclear.
2—Clear and accessible		
2—Clear and accessible		
2—Clear and accessible		
2—Clear and accessible		

	1—Partially clear and accessible	Vague/ambiguous language; Unclear grammar/typo(s)	"Communicate clear and reasonable arguments to distinguish between situations that can be modeled..." is not grammatically correct. We suspect the intent might be something like "Distinguish between situations that can be modeled with linear functions, exponential functions, or neither, and justify the conclusion."
As written, constructing the definitions of rigid transformations is not appropriate work, but we give the benefit of the doubt that that is not actually what the standard	2—Clear and accessible		
	1—Partially clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE	Related to the measurability issue, it is not clear what is meant by "construct definitions of the rigid transformations," so it is hard to know what the PE is.
	0—Not clear and accessible	Insufficient guidance to understand PE	Related to the measurability issues, the PEs for this standard are unclear due to the language used.
	0—Not clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE	Related to the measurability issue, the language in the standard is vague and lacks specificity, making the PEs unclear.

1—Partially clear and accessible	Insufficient guidance to understand PE	Again, the poor specificity of the standard makes it difficult to understand what is expected of the student in order to demonstrate proficiency.
2—Clear and accessible		
2—Clear and accessible		
1—Partially clear and accessible	Insufficient guidance to understand PE	Related to the measurability issue, more guidance is needed to understand the PE. Also explaining the distinction between correlation and causation makes sense, but it is not clear what is meant by justifying the distinction between correlation and causation. We suspect the intent is "Justify a conclusion about whether two variables have a causal or correlational relationship. "
1—Partially clear and accessible	Unclear grammar/typo(s)	The second sentence is unclear.

2—Clear and
accessible

2—Clear and
accessible

1—Partially
clear and
accessible

Vague/ambiguous
language; Insufficient
guidance to understand
PE

Related to the
measurability issues,
this standard is vague
and needs more
detail/specificity in
order for the PE to be
clear.

2—Clear and
accessible

2—Clear and
accessible

1—Partially
clear and
accessible

Unclear grammar/typo(s)

The text "by connecting
it with and without a
context" is not
linguistically clear or
mathematically precise.
"Connecting it with a
context" makes sense;
"connecting it without
a context" does not.

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

DOK		Mathematical Rigor	
DOK Level (1-4)	DOK Notes	Mathematical Rigor Tag(s)	Mathematical Rigor Notes
2	interpret their meaning in context	Conceptual Understanding; Procedural Skill / Fluency	interpreting requires decoding in context
2	Solving problems with equations and inequalities in and out of context	Conceptual Understanding; Procedural Skill / Fluency	Some <i>could</i> be Application
2		Conceptual Understanding; Procedural Skill / Fluency	A student could meet this standard without any connection to the real world.
3	"Justify" bumps it to 3 but mostly 2.	Applications; Conceptual Understanding	
3	"Justify" bumps it to 3 but mostly 2.	Applications; Conceptual Understanding	

2		Applications; Conceptual Understanding	Second part could be application.
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2	routine	Applications; Conceptual Understanding; Procedural Skill / Fluency
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2	routine	Applications; Conceptual Understanding; Procedural Skill / Fluency
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3		Conceptual Understanding; Applications
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2	Because this standard uses a non-measurable verb ("understand"), it is not clear what the PE actually is, so the DOK level is difficult to assess. We give the benefit of the doubt that this is not a purely procedural/recall standard.	Conceptual Understanding; Procedural Skill / Fluency
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2		Conceptual Understanding; Applications
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2

Conceptual
Understanding;
Procedural Skill /
Fluency

2

Conceptual
Understanding;
Applications

2	Procedural Skill / Fluency; Conceptual Understanding
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2 Conceptual Understanding

2	Procedural Skill / Fluency; Conceptual Understanding
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3 Conceptual
Understanding;
Applications

2 Conceptual Understanding; Procedural Skill / Fluency

3 Conceptual
 Understanding;
 Applications

2 Procedural Skill /
 Fluency;
 Conceptual
 Understanding

2 Procedural Skill /
 Fluency;
 Conceptual
 Understanding

2 Procedural Skill /
 Fluency;
 Conceptual
 Understanding

3 Conceptual
 Understanding;
 Applications

2 Applications

3 Applications

3 Applications

3 Applications;
Conceptual
Understanding

3 Applications

3 Conceptual
Understanding;
Applications

3 Conceptual
Understanding;
Applications

3 Applications

3 Conceptual
Understanding;
Applications

2	Procedural Skill / Fluency; Conceptual Understanding
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2	Conceptual Understanding
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Developmental Appropriateness		
Developmental Appropriateness Score (0-2)	Developmental Appropriateness Flag	Developmental Appropriateness Notes

2—Developmentally appropriate

2—Developmentally appropriate

2—Developmentally appropriate

2—Developmentally appropriate

2—Developmentally appropriate

2—Developmentally
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2—Developmentally
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For all of these,
depending on when they
land in the course, this
is typically covered in
Alg2/Math 3 or Trig in
most states.

2—Developmentally
appropriate

For all of these,
depending on when they
land in the course, this
is typically covered in
Alg2/Math 3 or Trig in
most states.

2—Developmentally
appropriate

For all of these,
depending on when they
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Alg2/Math 3 or Trig in
most states.

2—Developmentally
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Alg2/Math 3 or Trig in
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Alg2/Math 3 or Trig in
most states.

2—Developmentally
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Alg2/Math 3 or Trig in
most states.

2—Developmentally
appropriate

For all of these,
depending on when they
land in the course, this
is typically covered in
Alg2/Math 3 or Trig in
most states.

Integration of Appropriate Mathematical Practices		
Math Practice Integration	Math Practice Appropriateness	Identify Better Aligned MP Connection (if any and if misaligned)

2—All named practices integrated

2—All named practices appropriate

1—Any named practices integrated

2—All named practices appropriate

MP5

2—All named practices integrated

2—All named practices appropriate

MP4

2—All named practices integrated

2—All named practices appropriate

MP4

2—All named practices integrated

2—All named practices appropriate

2—All named practices integrated	2—All named practices appropriate	MP5
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2—All named practices integrated	2—All named practices appropriate	MP5
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2—All named practices integrated	2—All named practices appropriate	MP5
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2—All named practices integrated	2—All named practices appropriate	
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0—No practices integrated	2—All named practices appropriate	
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1—Any named practices integrated	2—All named practices appropriate	
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2—All named practices integrated	2—All named practices appropriate
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1—Any named practices integrated	1—Any named practices appropriate	MP7
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	2—All named practices appropriate	MP1
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated 2—All named practices appropriate

2—All named practices integrated 2—All named practices appropriate

2—All named practices integrated 2—All named practices appropriate

2—All named practices integrated 2—All named practices appropriate MP4

2—All named practices integrated	2—All named practices appropriate
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1—Any named practices integrated	2—All named practices appropriate
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0—No practices integrated	0—No practices appropriate
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0—No practices integrated	0—No practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated 2—All named practices appropriate

2—All named practices integrated 2—All named practices appropriate

Mathematical Practice Integration Notes

MP3 not integrated

This seems more like the
middle school level of MP 5.

The reason MP7 is not fully integrated into this standard is because the lack of an observable verb means that there is not a clear & measurable PE.

The second part of the standard is close to what the end of the high school description for MP 2 says, but is not fully integrated.

"MP 2 - Specifically says
"Students add or remove
context to help make sense of
mathematical concepts" so MP
2 is well integrated. Adding
a context could help make
sense of the features of a
"naked" function, while
removing a context could make
it easier to focus on the
features of a function
represented as an equation,
table, etc., so the practice
could potentially be
appropriate.

MP4 - The second PE ("Build
graphic models that satisfy
given key features") is not
clear enough to tell whether
MP 4 is meaningfully
integrated (specifically, not
clear what "satisfy" means in
this context). MP 4 could be
appropriate if the standard
had an application focus.

When talking about the key
features of a function, MP 7
is a natural connection. MP 3
could also be a good fit. "

Communicating a definition
doesn't communicate an
argument.



It is not clear whether MP2
not integrated because the
text "by connecting it with
and without a context" is not
linguistically clear or
mathematically precise.

The standard does not address
MP3; communicating
understanding is not the same
as communicating an argument.

The standard does not address
MP3; communicating
understanding is not the same
as communicating an argument.

Domain	Standard ID	Standard Text
Algebra (A)	S2.A.1	<i>Use the structure of quadratic and exponential expressions by identifying parts of the expression and interpret in context (ie. Use vertex form of a quadratic to identify the maximum height of an object flying through the air). Use <i>algebraic tools</i> to produce equivalent forms that reveal different properties. (MP 2, 5, 7)</i>
Algebra (A)	S2.A.2	<i>Use addition, subtraction and multiplication to build new linear and quadratic functions. (MP 4)</i>
Algebra (A)	S2.A.3	<i>Build symbolic models of linear and quadratic equations and inequalities, and use them to solve problems in and out of context. (MP 3, 4)</i>
Algebra (A)	S2.A.4	<i>Select and use algebraic and technologic tools to strategically solve quadratic equations and inequalities in one variable. Algebraic tools include taking square roots, completing the square, the quadratic formula, and factoring. (MP 5)</i>
Algebra (A)	S2.A.5	<i>Select and use algebraic and technologic tools to strategically solve a system of equations consisting of a linear equation and a quadratic equation in two variables. Algebraic tools, including factoring and the quadratic formula, should be used in simpler cases, and technologic tools in more complicated cases. (MP 5)</i>
Number System (NS)	S2.NS.1	<i>Extend understanding of the structure of integer exponent properties to rational exponents. (MP 8)</i>

Number System (NS)	S2.NS.2	Use the properties of exponents <i>as tools</i> to rewrite expressions involving radicals and rational exponents in equivalent forms. (MP 5)
Number System (NS)	S2.NS.3	Use the Fundamental Theorem of Algebra to <i>construct arguments</i> that verify that the solutions to any quadratic equation will always be numbers within the set of complex numbers and will have the form $a + bi$ where a and b are real numbers. (MP 3)
Number System (NS)	S2.NS.4	<i>Build and use models</i> to solve quadratic equations with real coefficients that have complex solutions, rewriting $x^2 + 4$ as $(x + 2i)(x - 2i)$. (MP 4)
Functions (F)	S2.F.1	Understand and interpret the features of a function represented graphically, numerically and symbolically using interval notation and inequalities by <i>applying and removing context</i> . Focus on these key features: domain, range, intervals of increase and/or decrease, location of absolute maximum and/or absolute minimum, and intercepts. <i>Build</i> graphic <i>models</i> that satisfy given key features. (MP 2, 4)
Functions (F)	S2.F.2	Determine the average rate of change of a function over a closed interval while attending to precision and reasonableness. Connect the average rate of change with <i>context</i> appropriately. (MP 2, 6)

Functions (F)	S2.F.3	<i>Build graphic representations</i> that show key features of quadratic, linear, exponential, absolute value and piecewise functions expressed symbolically. <i>Select and use appropriate tools to</i> model with and without technology. (MP 4, 5)
Functions (F)	S2.F.4	Compare and contrast the properties of quadratic, linear, exponential, absolute value and piecewise functions (represented in different ways), including zeros, extreme values, symmetry and percent rate, when appropriate. <i>Formulate and ask questions</i> to highlight the similarities and differences between function types. (MP 1)
Functions (F)	S2.F.5	<i>Select and use algebraic tools</i> to create different but equivalent forms of functions that highlight different properties of the function. <i>Contextualize and decontextualize</i> these functions to interpret these properties. (MP 2, 5)
Functions (F)	S2.F.6	<i>Build a function that models</i> a quadratic relationship. Use <i>structures and patterns</i> to build an equation that models explicit reasoning, or a recursive process. <i>Attend to the precision</i> of notation and labeling while building and using these models. (MP 4, 6, 7)

Functions (F)	S2.F.7	Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(x+k)$ by exploring specific values of k for quadratic and absolute value functions in and out of context. <i>Attend to precision</i> of language and notation while <i>constructing arguments</i> and carefully evaluate whether the ideas and processes observed during exploration are <i>reasonable</i> . (MP 3, 6)
Functions (F)	S2.F.8	<i>Communicate clear and reasonable arguments</i> to distinguish between situations that can be modeled with quadratic, exponential, and linear functions. Interpret the structure of quadratic functions written in different forms with the features of their graphs. (MP 3, 7)
Geometry (G)	S2.G.1	<i>Construct, justify and communicate clear and reasonable arguments</i> to prove geometric theorems. Support refinement of reasoning by <i>asking questions</i> . Develop flexibility in creating logical arguments and proofs of various formats, including: narrative paragraphs, flow diagrams, two-column format, and diagrams without words. (MP 1, 3) Proofs should focus on:
Geometry (G)	S2.G.1 (a)	a. theorems about lines and angles; vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.

Geometry (G)	S2.G.1 (b)	b. theorems about triangles; measures of interior angles of a triangle sum to 180°; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.
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Geometry (G)	S2.G.1 (c)	c. theorems about parallelograms; opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals.
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Geometry (G)	S2.G.2	<i>Describe and represent the underlying structures</i> and properties that define dilations and similar shapes. Use the structures and properties of dilation and similarity to solve problems. (MP 7)
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Geometry (G)	S2.G.3	<i>Build and use models</i> that include congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures. <i>Construct, justify and communicate</i> a clear and reasonable proof of the Pythagorean Theorem using triangle similarity. (MP 3, 4)
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Geometry (G)	S2.G.4	<i>Describe and represent</i> side ratios in right triangles based upon the <i>underlying structure</i> of similarity. Connect consistency across similar right triangles to definitions of trigonometric ratios for acute angles. (MP 7)
Geometry (G)	S2.G.5	<i>Verify, justify and communicate</i> the relationships that exist between trigonometric ratios and trigonometric identities. Keep the focus on the relationship between sine and cosine of complementary angles, the Pythagorean Identity, and the tangent ratio in terms of sine and cosine. (MP 3)
Geometry (G)	S2.G.6	Flexibly, accurately, and efficiently use trigonometric ratios and the Pythagorean Theorem to solve <i>real-world and mathematical problems</i> that can be <i>modeled</i> with right triangles. (MP 2, 4)
Geometry (G)	S2.G.7	<i>Construct, justify and communicate a clear and reasonable argument</i> that all circles are similar. <i>Connect the underlying structures</i> of similarity to relationships between angles, segments and arcs within circles. (MP 3, 7)

Geometry (G)	S2.G.8	<i>Describe and represent structures and patterns</i> between inscribed angles, radii, and chords. Relationships include the relationships between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle. (MP 7)
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Geometry (G)	S2.G.9	<i>Describe and represent</i>, using similarity, the definition of a radian as the ratio of arc length to radius. Create a distinction between arc length and arc measure and be able to <i>attend to precisions</i> while relating each of these to radian measure or the formula for the area of a sector. (MP 6, 7)
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Geometry (G)	S2.G.10	<i>Use structures and patterns</i> to work with equations of circles, find different forms of the equations and different defining features of the circle, including the center, radius, and points located on the circle. Use right triangles with the same hypotenuse length, and the Pythagorean Theorem to derive the equation of a circle. (MP 7)
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		<i>Attend to precision and reasonableness</i> with respect to area and volume formulas (circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone) by applying informal arguments about how area and volume scale under similarity transformations. When scale factor k is applied to a figure, area scales by k^2 and volume scales by k^3 . (MP 6)
Geometry (G)	S2.G.11	

		<i>Attend to precision and reasonableness</i> while using volume formulas for cylinders, pyramids, cones, and spheres to solve problems. (MP 6)
Geometry (G)	S2.G.12	

		<i>Ask statistical questions</i> to investigate linear, exponential, and quadratic associations between two quantitative variables. (MP 1)
Data Science (D)	S2.D.1	

		<i>Select the appropriate statistical tools</i> to create a data collection plan. Collect and organize primary data to investigate the association between two variables and make conjectures. For secondary data, determine if data collected are useful to answer the statistical question of interest. (MP 5)
Data Science (D)	S2.D.2	

Data Science (D)	S2.D.3	Analyze data to explore the association between two quantitative variables. Use scatter plots to determine and explain patterns of association. Use technology to find and interpret the correlation coefficient and <i>evaluate the reasonableness</i> and strength of the model used. Determine whether a linear, exponential or quadratic function is the most reasonable model for the data. (MP 6, 8) Use the statistical evidence to evaluate results from analyses to answer questions about associations between two quantitative variables. Identify ways to refine investigative questions, data collection, visualization, or analysis. Represent the relationship with a curve of best fit and use the model of the equation to solve problems. <i>Justify</i> statistical reasoning and results to others in a variety of formats including verbal, written, and visual. (MP 3, 8)
Data Science (D)	S2.D.4	

Extended Topics

Vectors	S2.V.1	Recognize vector quantities as having both magnitude and direction. <i>Represent</i> vector quantities by directed line segments, and use appropriate symbols for vectors and their magnitudes. (MP 7)
Vectors	S2.V.2	Find and <i>represent</i> the components of a vector by subtracting the coordinates of an initial point from the coordinates of a terminal point. (MP 7)
Vectors	S2.V.3	Add and subtract vectors and multiply a vector by a scalar. <i>Make sense</i> of the operations by connecting <i>with and without a context</i> . (MP 2)

Vectors	S2.V.4	Multiply a vector (regarded as a matrix with one column) by a matrix of suitable dimensions to produce another vector. Work with matrices as transformations of vectors. <i>Make sense</i> of this product by connecting it <i>with and without a context</i> . (MP 2)
Vectors	S2.V.5	Solve <i>real world and mathematical problems</i> involving velocity and other quantities that can be represented by vectors. (MP 2)
Number System	S2.NS.5	Find the conjugate of a complex number; use conjugates to find moduli and quotients of complex numbers. <i>Represent</i> the conjugate and moduli on the complex plane. (MP 7)
Number System	S2.NS.6	<i>Represent</i> complex numbers on the complex plane in rectangular form, and <i>explain</i> why the rectangular form of a given complex number represents the same number. (MP 3, 4)
Number System	S2.NS.7	<i>Represent</i> addition, subtraction, and multiplication geometrically on the complex plane; use properties of this representation for computation. (MP 4)

Geometry	S2.G.13	<i>Derive</i> the equation of a parabola given a focus and directrix. (MP 3)
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Geometry	S2.G.14	<i>Derive</i> the equations of ellipses and hyperbolas given the foci, using the fact that the sum or difference of distances from the foci is constant. (MP 3)
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Measureability			Instructional
Measurability Score (0-2)	Measurability Issue Flag	Measurability Notes	Instructional Focus Tag

2—Measurable & well specified

Widely applicable prerequisite

2—Measurable & well specified

Widely applicable prerequisite

2—Measurable & well specified

Widely applicable prerequisite

2—Measurable & well specified

Widely applicable prerequisite

2—Measurable & well specified

Widely applicable prerequisite

0—Not measurable or poorly specified

Non-observable verb; Poorly specified

"Understanding" is non-observable. Because "understanding of the structure of integer exponents" is poorly specified, it is not clear what the PE would be for extending that understanding to rational exponents.

Widely applicable prerequisite

2—Measurable & well specified	Widely applicable prerequisite
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2—Measurable & well specified	Appropriate supporting work
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2—Measurable & well specified	Appropriate supporting work
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1—Partially measurable / well specified	Non-observable verb	"Understand" is a non-observable verb; the standard also does not specify what a student should understand about the features of a function.	Widely applicable prerequisite
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2—Measurable & well specified	Widely applicable prerequisite
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1—Partially measurable / well specified	Too vague	The measurability issues here are related to the clarity of the language.	Widely applicable prerequisite
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2—Measurable & well specified			Widely applicable prerequisite
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1—Partially measurable / well specified	Multiple expectations; Poorly specified	Given the focus of this standard, the particular "algebraic tools" or techniques need to be specified. Otherwise the PE will not be clear to teachers, assesors, etc.	Widely applicable prerequisite
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1—Partially measurable / well specified	Too vague	The relationship between the first two sentences is unclear. What does "models explicit reasoning" look like?	Widely applicable prerequisite
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		Measurability issues here are related to clarity. The second sentence is extremely wordy and vague; it is not at all clear what behaviors a teacher would be looking for to assess proficiency.	
1—Partially measurable / well specified	Too vague; Poorly specified		Widely applicable prerequisite

		Specifying the relation of the 2nd and 3rd performances to the 1st would be helpful.	
1—Partially measurable / well specified	Multiple expectations		Widely applicable prerequisite

		"develop flexibility" is not an observable behavior; what would be the evidence of this?	
1—Partially measurable / well specified	Non-observable verb		Widely applicable prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

2—Measurable &
well specified

Widely applicable
prerequisite

The first sentence
is not measurable
due to clarity
issues; it is not
clear what is meant
by "Build and use
models that include
congruence and
similarity criteria
for triangles to
solve problems and
to prove
relationships in
geometric figures"
and so the PE is
not clear. (Because
the first sentence
is poorly
specified, it's
difficult to say
whether there are
two distinct PEs
here or not)

1—Partially
measurable /
well specified

Poorly specified

Widely applicable
prerequisite

1—Partially measurable / well specified	Poorly specified	"Describe and represent side ratios in right triangles based upon the underlying structure of similarity" is not clear enough to understand what is expected of students.	Widely applicable prerequisite
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2—Measurable & well specified			Widely applicable prerequisite
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2—Measurable & well specified			Widely applicable prerequisite
----------------------------------	--	--	-----------------------------------

1—Partially measurable / well specified	Poorly specified	"Connect the underlying structures of similarity to relationships between angles, segments and arcs within circles" is not clear enough to understand what is expected of students.	Widely applicable prerequisite
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2—Measurable &
well specified

Widely applicable
prerequisite

0—Not
measurable or
poorly specified

Too vague; Poorly
specified

The measurability
issues here are
related to the
clarity of the
language.

Widely applicable
prerequisite

1—Partially
measurable /
well specified

Too vague; Poorly
specified

"Work with" is
vague and poorly
specified. "Use
structures and
patterns" should
also be further
specified. (What
structures and
patterns?)

Widely applicable
prerequisite

0—Not measurable or poorly specified	Too vague; Poorly specified	"Attend to precision and reasonableness" are vague in terms of the PE; it is not clear what the evidence would be. The second sentence contains no PE.	Widely applicable prerequisite
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2—Measurable & well specified			Widely applicable prerequisite
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1—Partially measurable / well specified	Non-observable verb; Too vague	The verb "investigate" is difficult to measure.	Widely applicable prerequisite
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1—Partially measurable / well specified	Multiple expectations; Too broad; Poorly specified	"Select the appropriate statistical tools to create a data collection plan" is not specific about the expectations for students. The overall standard is exceptionally broad, covering a wide range of performances.	Widely applicable prerequisite
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1—Partially measurable / well specified	Multiple expectations	This standard includes 3-4 distinct PEs which need to be assessed via different performances.	Widely applicable prerequisite
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1—Partially measurable / well specified	Multiple expectations; Poorly specified	What is the difference between "use statistics to evaluate results" vs. use THE statistical EVIDENCE to evaluate results"?	Widely applicable prerequisite
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1—Partially measurable / well specified	Non-observable verb	"Recognize" is not measurable. Consider what observable behavior the teacher would look for. The 2 expectations are closely tied and can be evaluated via one performance.	Appropriate supporting work
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2—Measurable & well specified			Appropriate supporting work
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1—Partially measurable / well specified	Too vague	The second sentence is vague and not clear.	Appropriate supporting work
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1—Partially measurable / well specified	Too vague; Poorly specified	"Work with" is vague and poorly specified. "Make sense" is not observable; it is not clear what behavior teachers would be looking for to know that students had made sense of matrix products. (It is also not clear grammatically what is meant by "connecting it with and without a context," so not clear how this would be measured.)	Appropriate supporting work
2—Measurable & well specified			Appropriate supporting work
2—Measurable & well specified		The 2 expectations are closely tied and can be evaluated via one performance.	Appropriate supporting work
2—Measurable & well specified			Appropriate supporting work
2—Measurable & well specified			Appropriate supporting work

2—Measurable &
well specified

Appropriate
supporting work

2—Measurable &
well specified

Appropriate
supporting work

Instructional Focus		Clarity & Accessibility	
Instructional Focus Notes	Clarity & Accessibility Score (0-2)	Clarity & Accessibility Issue Flag	Clarity & Accessibility Notes

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

1—Partially clear and accessible

Insufficient guidance to understand PE

Because the standard is poorly specified, the PE is not clear.

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

1—Partially
clear and
accessible

Insufficient guidance to
understand PE

Related to the
measurability issues,
it is difficult to
understand the PEs
because the standard is
poorly specified.

2—Clear and
accessible

0—Not clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE	The first PE is unnecessarily wordy, making the meaning both ambiguous and unclear. What is the desired PE? Is it to build symbolic representations of different functions (e.g., equations)? Or is it to generate OTHER representations of functions that have been presented symbolically? "Select and use appropriate tools to model with and without technology" is also vague/ambiguous, making the PE unclear.
2—Clear and accessible		
1—Partially clear and accessible	Insufficient guidance to understand PE	Because the algebraic tools are not specified, the PEs are not clear.
2—Clear and accessible		

1—Partially
clear and
accessible

Vague/ambiguous
language; Insufficient
guidance to understand
PE

The second sentence is
extremely vague and
difficult to parse; the
PE is not clear.

1—Partially
clear and
accessible

Vague/ambiguous
language; Unclear
grammar/typo(s)

"Communicate clear and
reasonable arguments to
distinguish between
situations that can be
modeled..." is not
grammatically correct.
We suspect the intent
might be something like
"Distinguish between
situations that can be
modeled with quadratic,
exponential. or linear
functions, and justify
the conclusion."

2—Clear and
accessible

2—Clear and
accessible

1—Partially
clear and
accessible

Insufficient guidance to
understand PE

Because the first
sentence is poorly
specified, it is not
possible to tell what
the PE is.

1—Partially
clear and
accessible

Vague/ambiguous
language; Insufficient
guidance to understand
PE

Because the first sentence is poorly specified, it is not possible to tell what the PE is. We suspect that what is intended is something like "Explain that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles."

2—Clear and
accessible

2—Clear and
accessible

1—Partially
clear and
accessible

Vague/ambiguous
language; Insufficient
guidance to understand
PE

Because the second sentence is poorly specified, it is not possible to tell what the PE is. We suspect that what is intended is something like "Using the similarity of all circles, identify and describe relationships between angles, segments and arcs within circles."

2—Clear and
accessible

1—Partially
clear and
accessible

Vague/ambiguous
language; Insufficient
guidance to understand
PE; Unclear
grammar/typo(s)

The phrase "describe
and represent" creates
confusion here where
the word "derive" would
suffice (and is much
clearer). "Create a
distinction" is also
unclear (vs for example
"Explain the
distinction). "Attend
to precisions" is both
grammatically incorrect
(typo?) and is unclear
in terms of the precise
PE.

1—Partially
clear and
accessible

Vague/ambiguous
language; Insufficient
guidance to understand
PE

Because "use structures
and patterns" and "work
with equations" are
vague and poorly
specified, the PEs are
not clear.

1—Partially clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE	Because "Attend to precision and reasonableness" is poorly specified, the PE is not clear. It is not clear what the PE is for the second sentence. We also wonder if this standard was intended to also include content related to giving informal arguments for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone (e.g. via dissection arguments, Cavalieri's principle, and/or informal limit arguments). The standard seems to be nodding toward this content but these specific PEs are not currently included.
2—Clear and accessible		
2—Clear and accessible		
2—Clear and accessible		

2—Clear and
accessible

2—Clear and
accessible



2—Clear and
accessible

2—Clear and
accessible

1—Partially
clear and
accessible

Vague/ambiguous language

The second sentence is
vague and not clear.

		The text "by connecting it with and without a context" is not
1—Partially clear and accessible	Unclear grammar/typo(s); Insufficient guidance to understand PE	linguistically clear or mathematically precise. "Connecting it with a context" makes sense; "connecting it without a context" does not.

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

2—Clear and
accessible

2—Clear and
accessible

2	Procedural Skill / Fluency; Conceptual Understanding
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3 Conceptual Understanding

2 Conceptual Understanding

2 Conceptual Understanding

2	Procedural Skill / Fluency; Conceptual Understanding; Applications
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2

Procedural Skill /
Fluency

2

Conceptual
Understanding

2

Procedural Skill /
Fluency;
Conceptual
Understanding

3

Conceptual
Understanding

3

Conceptual
Understanding

3

Procedural Skill /
Fluency;
Conceptual
Understanding;
Applications

3

Applications;
Conceptual
Understanding

2

Conceptual
Understanding;
Procedural Skill /
Fluency

3

Conceptual
Understanding

2 Conceptual
Understanding

3 Conceptual
Understanding

2 Procedural Skill /
Fluency;
Conceptual
Understanding;
Applications

3 Conceptual
Understanding

Procedural Skill /
Fluency

Conceptual Understanding

Procedural Skill /
Fluency;
Applications

Procedural Skill /
Fluency

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Applications

2 Conceptual
Understanding;
Applications

3 Conceptual
Understanding;
Applications



2 Procedural Skill /
Fluency

2 Procedural Skill /
Fluency

2 Procedural Skill /
Fluency;
Conceptual
Understanding

2 Procedural Skill /
 Fluency;
 Conceptual
 Understanding

2 Procedural Skill /
 Fluency;
 Applications

2 Conceptual
 Understanding;
 Procedural Skill /
 Fluency

3 Procedural Skill /
 Fluency;
 Conceptual
 Understanding

2 Procedural Skill /
 Fluency;
 Conceptual
 Understanding

Procedural Skill /
FluencyProcedural Skill /
Fluency

Developmental Appropriateness		
Developmental Appropriateness Score (0-2)	Developmental Appropriateness Flag	Developmental Appropriateness Notes

2—Developmentally appropriate

2—Developmentally appropriate

2—Developmentally appropriate

2—Developmentally appropriate

2—Developmentally appropriate

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appropriate

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appropriate

2—Developmentally
appropriate

2—Developmentally
appropriate

2—Developmentally
appropriate

For all of these,
depending on when they
land in the course, this
is typically covered in
Alg2/Math 3 or Trig in
most states.

For all of these,
depending on when they
land in the course, this
is typically covered in
Alg2/Math 3 or Trig in
most states.

2—Developmentally
appropriate

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appropriate

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Alg2/Math 3 or Trig in
most states.

2—Developmentally
appropriate

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most states.

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appropriate

For all of these,
depending on when they
land in the course, this
is typically covered in
Alg2/Math 3 or Trig in
most states.

2—Developmentally
appropriate

For all of these,
depending on when they
land in the course, this
is typically covered in
Alg2/Math 3 or Trig in
most states.

2—Developmentally
appropriate

For all of these,
depending on when they
land in the course, this
is typically covered in
Alg2/Math 3 or Trig in
most states.

Integration of Appropriate Mathematical Pra		
Math Practice Integration	Math Practice Appropriateness	Identify Better Aligned MP Connection (if any and if misaligned)

1—Any named practices integrated	1—Any named practices appropriate	
0—No practices integrated	0—No practices appropriate	MP7
1—Any named practices integrated	1—Any named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	
0—No practices integrated	0—No practices appropriate	MP7

2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP7
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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1—Any named practices integrated	1—Any named practices appropriate
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2—All named practices 2—All named
integrated practices appropriate

2—All named practices 2—All named
integrated practices appropriate

2—All named practices 2—All named
integrated practices appropriate

2—All named practices 2—All named
integrated practices appropriate

2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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integrated practices appropriate

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integrated practices appropriate

2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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1—Any named practices integrated	1—Any named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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1—Any named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	2—All named practices appropriate	MP5
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	2—All named practices appropriate	MP7
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0—No practices integrated	2—All named practices appropriate	MP7
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MP2 not integrated; this standard does not ask students to make sense of mathematical content by adding or removing a context.

Does not address modeling at all.

MP3 not integrated; does not address justification or communicating an argument.

MP2 is not integrated. The standard mentions contextual problems, but does not require students to make sense of mathematics by adding or removing a context.

MP2 is not integrated. The standard mentions real world problems, but does not require students to make sense of mathematics by adding or removing a context.

MP 3 talks about communicating reasoning and justifying a mathematical statement, so the practice is both appropriate to the content and well-integrated.

MP 7 - While "connect the underlying structures of similarity" is vague and there is some lack of precision in the standard's language, the intent of the standard clearly seems to be around using geometric structure to justify geometric statements, so we will give the benefit of the doubt that the practice is well-integrated and appropriate to the content.

Again we could identify other practices that would be good options, but both of the explicitly given ones are fine.

MP8 is not quite there yet.
Students are not asked specifically
to generate and prove conjectures.



MP2 is not integrated. The standard mentions real world problems, but does not require students to make sense of mathematics by adding or removing a context.

MP3 is not integrated; does not address justification or communicating an argument.

Code S2.G.12 is also used to code this same standard text in the AGA file.

MP3 is not integrated; does not address justification or communicating an argument.

Code S2.G.13 is also used to code this same standard text in the AGA file.

Domain	Standard ID	Standard Text
Algebra (A)	S3.A.1	<i>Interpret</i> polynomial expressions given in factored form or standard form that represent a quantity in terms of a context. <i>Represent</i> polynomial expressions by using <i>technological tools</i> to produce equivalent forms (standard or factored) that reveal different properties, and <i>interpret one or more of their parts as a single entity</i> . (MP 2, 5, 7)
Algebra (A)	S3.A.2	Create equations and inequalities in one variable to <i>model a context</i> and use them to solve problems. Include equations arising from linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, square root and cube root functions. (MP 3)
Algebra (A)	S3.A.3	For exponential models, express as a logarithm the solution to $f(t)=ab^{ct} = d$ where a , c , and d are numbers, and the base b is 2 or 10; evaluate the logarithm using <i>technological tools</i> . (MP 2)
Algebra (A)	S3.A.4	Solve an equation of the form $f(x)=c$ for a simple function f that has an inverse. <i>Use the attributes of inverse relationships</i> to write inverse expressions. Include linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, logarithmic, square root, and cube root functions. (MP7)
Functions (F)	S3.F.1	Understand and interpret the features of polynomial, radical or logarithmic functions represented graphically using interval notation and inequalities by <i>applying and removing context</i> . Focus on these key features: domain, range, intervals of increase and/or decrease, location of absolute maximum and/or absolute minimum, intercepts and end behavior. <i>Build graphic models</i> that satisfy given key features. (MP 2, 4)

Functions (F)	S3.F.2	<i>Build and use models</i> of periodic phenomena with sine and cosine functions that connect real world contexts with amplitude, frequency, and midline. <i>Use structures and patterns</i> to support understanding of a domain extended beyond 0 to 90 degrees, or 0 to $\pi / 2$ radians. (MP 4, 7)
Functions (F)	S3.F.3	Understand and interpret key features (period, midline and amplitude) of sine and cosine functions represented graphically. <i>Build</i> graphic <i>models</i> that satisfy the given key features. (MP 4)
Functions (F)	S3.F.4	<i>Build graphical representations</i> that show key features of polynomial, square root, cube root, exponential, logarithmic, and trigonometric (sine and cosine) functions expressed symbolically. <i>Select and use appropriate tools</i> to graph, by hand for simple cases, and using technology for more complicated cases. (MP 4, 5)
Functions (F)	S3.F.5	Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(x+k)$ by exploring specific values of k for polynomial, square root, cube root, exponential, logarithmic, and trigonometric functions in and out of context. <i>Attend to precision</i> of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are <i>reasonable</i>. (MP 3, 6)
Functions (F)	S3.F.6	<i>Use the attributes of inverse relationships to build models</i> (tables, graphs, verbal descriptions and equations) for the inverses of linear, exponential, and quadratic functions. (MP 4, 7)
Functions (F)	S3.F.7	Determine which function type (polynomial, square root, cubic root, exponential, or trigonometric) best models a given real world context. (MP 4)

Functions (F)	S3.F.8	<i>Justify</i> that a quantity increasing exponentially eventually exceeds a quantity increasing linearly or quadratically, or (more generally) as a polynomial function. (MP 3)
Geometry (G)	S3.G.1	Use geometric shapes, their measures, and their properties to <i>model</i> real world objects and solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost). <i>Use these models to ask targeted and probing questions</i> with respect to area and volume <i>in context</i> . (MP 1, 2, 4)
Geometry (G)	S3.G.2	Apply concepts of density based on area and volume in <i>modeling</i> situations. (MP4)
Geometry (G)	S3.G.3	<i>Attend to precision and reasonableness</i> while using volume formulas for cylinders, pyramids, cones, and spheres to solve problems. (MP 6)
Data Science (D)	S3.D.1	<i>Describe and represent structures and patterns</i> of data on two categorical variables. <i>Attend to precision and reasonableness</i> when summarizing categorical data in two-way frequency models, and <i>construct, justify, and communicate clear and reasonable arguments</i> about possible associations and trends in the data. (MP 3, 6, 7)
Data Science (D)	S3.D.2	<i>Build and use probability models</i> including organized lists, venn-diagrams, tree diagrams, and two-way tables to find or estimate probabilities of compound or conditional events. (MP 4)

Data Science (D)	S3.D.3	<i>Use multiple representations as tools to describe and represent structure</i> to build understanding of the addition rule, $P(A \cup B) = P(A) + P(B) - P(A \cap B)$. Understand the conditional probability of A given B as $P(A \cap B)/P(B)$. Interpret independence of A and B as saying that the conditional probability of B given A is the same as the probability of B. (MP 7)
Data Science (D)	S3.D.4	Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. <i>Select and use physical and/or tech tools</i> to estimate areas under the normal curve. (MP 5)
Data Science (D)	S3.D.5	<i>Formulate statistical investigative questions</i> that are either summary-based or comparative for surveys, observational studies, or experiments using primary and/or secondary data. <i>Select appropriate statistical tools</i> to develop a plan for data collection and analysis to address these questions. (MP 1, 5)
Data Science (D)	S3.D.6	<i>Select appropriate statistical tools</i> to implement a data collection plan for primary data related to an investigative question. When using secondary data, assess its validity and relevance to answering the question. <i>Construct an argument</i> justifying the chosen data collection method (survey, observational study or experiment). Understand and apply best practices for designing sample surveys, experiments, and observational studies. (MP 3, 5)

Data Science (D)	S3.D. 7	<i>Attend to precision and reasonableness</i> when summarizing and organizing collected data to answer an investigative question using tables, graphs, and numerical summary statistics. <i>Use models</i> from sample data to estimate population means or proportions. Employ simulation models for random sampling to determine approximate sampling distributions and compute p-values from those distributions. (MP 4, 6)
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Data Science (D)	S3.D. 8	Use statistical evidence from the analyses to <i>evaluate results</i> and answer questions. Identify ways to refine investigative questions, data collection, visualization, or analysis. <i>Justify</i> outcomes or estimates of population characteristics, considering their plausibility compared to chance variation, in a variety of formats (verbal, written, visual). Communicate the interpretation of simulated p-values and determine statistical significance. (MP 3, 8)
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Intermediate Algebra Pathway Standards

Algebra (A)	CS3.A. 5 (Extension of S3.A. 2)	Create equations and inequalities in one variable to <i>model a context</i> and use them to solve problems. Include equations arising from polynomial, exponential, rational and radical functions. (MP 3)
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Algebra (A)	CS3.A.6 (Extension of S3.A.3)	For exponential models, express as a logarithm the solution to $f(t)=ab^{ct}=d$ where a , b , c , and d are numbers, $b>0$; evaluate the logarithm using <i>technological tools</i> . <i>Justify</i> and use the properties of logarithms to generate equivalent expressions, connecting them to the properties of exponents. (MP 2, 3)
Algebra (A)	CS3.A.7	Understand the inverse relationship between exponents and logarithms. Use this <i>relationship</i> to solve problems involving exponents and logarithms. (MP 7)
Algebra (A)	CS3.A.10	Add, subtract, multiply and divide polynomial and rational functions. <i>Justify</i> whether these operations result in new polynomial or rational functions. (MP 3)
Algebra (A)	CS3.A.11	Identify zeros of polynomial functions <i>using algebraic tools</i> , including factoring or the Remainder Theorem. (MP 5)
Algebra (A)	CS3.A.12	Expand and simplify polynomial sums, products, and powers using <i>structures and patterns</i> . (MP 7)
Algebra (A)	CS3.A.13	Solve compound inequalities in one variable, including absolute value inequalities <i>using algebraic or technological tools</i> . (MP 5)

Number System (NS)	CS3.NS.2	Using the Fundamental Theorem of Algebra, <i>construct arguments</i> that verify the solutions to polynomial equations will always be numbers within the set of complex numbers and will have the form $a + bi$ where a and b are real numbers. (MP 3)
Number System (NS)	CS3.NS.3	Find solutions for polynomials that are limited to integer coefficients <i>using algebraic or technological tools</i> . (MP 5) Understand and interpret the features of polynomial, radical, rational or logarithmic functions represented graphically using interval notation and inequalities <i>by applying and removing context</i> . Focus on these key features: domain, range, intervals of increase and/or decreasing, location of absolute maximum and/or absolute minimum, intercepts, asymptotes, and end behavior. <i>Build graphic models</i> that satisfy given key features. (MP 2, 4)
Functions (F)	CS3.F.9 (Extension of S3.F.1)	
Functions (F)	CS3.F.10 (Extension of S3.F.2)	<i>Build and use models</i> of periodic phenomena with trigonometric functions that connect real world contexts with amplitude, frequency, and midline. <i>Use structures and patterns</i> to support understanding of a domain extended beyond 0 to 90 degrees, or 0 to $\pi/2$ radians. (MP 4, 7)
Functions (F)	CS3.F.11 (Extension of S3.F.3)	Understand and interpret key features (period, midline and amplitude/asymptote) of trigonometric functions represented graphically. <i>Build graphic models</i> that satisfy the given key features. (MP 4)
Functions (F)	CS3.F.12 (Extension of S3.F.4)	<i>Build graphical representations</i> that show key features of polynomial, radical, exponential, logarithmic, rational and trigonometric functions expressed symbolically. <i>Select and use appropriate tools</i> to graph, by hand for simple cases, and use technology for more complicated cases. (MP 4, 5)

		Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, $f(x+k)$ by exploring specific values of k for polynomial, radical, exponential, logarithmic, rational, and trigonometric functions in and out of context. <i>Attend to precision</i> of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are <i>reasonable</i> . (MP 3, 6)
Functions (F)	CS3.F.13 (Extension of S3.F.5)	
Functions (F)	CS3.F.16	<i>Build</i> a new function from a composition of functions that <i>models a relationship</i> between two quantities. (MP 4) [Note that this standard appears in the C pathway as CS3.F.15]
Functions (F)	CS3.F.17	Verify by composition that one function is the inverse of another function. <i>Build an invertible function</i> from a non-invertible function by restricting the domain. (MP 4) [Note that this standard appears in the C pathway as CS3.F.16]
Geometry/Trigonometry (G)	CS3.G.4	Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles <i>with and without context</i> . (MP 2)
Geometry/Trigonometry (G)	CS3.G.5	Use special triangles as tools to construct the unit circle with degrees and radians. <i>Describe and represent patterns</i> in the unit circle and use them as tools to evaluate the trigonometric functions at

Measurability Score (0-2)		Measurability Issue Flag
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2—Measurable & well specified

2—Measurable & well specified

2—Measurable & well specified

2—Measurable & well specified

1—Partially measurable / well specified	Non-observable verb; Poorly specified
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0—Not measurable or poorly specified	Multiple expectations; Non- observable verb; Poorly specified
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1—Partially measurable / well specified	Non-observable verb
---	---------------------

2—Measurable & well
specified

1—Partially measurable / well specified	Multiple expectations; Poorly specified
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2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

1—Partially measurable / well specified	Poorly specified
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2—Measurable & well
specified

1—Partially measurable / well specified	Poorly specified
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1—Partially measurable / well specified	Poorly specified
---	------------------

2—Measurable & well
specified

1—Partially measurable / well specified	Multiple expectations; Non- observable verb
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1—Partially measurable / well specified	Multiple expectations; Non- observable verb
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2—Measurable & well
specified

1—Partially measurable / well specified	Multiple expectations; Non- observable verb
---	---

1—Partially measurable / well specified	Poorly specified
---	------------------

1—Partially measurable / well specified	Multiple expectations
---	--------------------------



2—Measurable & well
specified

2—Measurable & well
specified

1—Partially
measurable / well Non-observable verb
specified

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

1—Partially measurable / well specified	Non-observable verb
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0—Not measurable or poorly specified	Multiple expectations; Non- observable verb; Poorly specified
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1—Partially measurable / well specified	Non-observable verb
---	---------------------

2—Measurable & well
specified

1—Partially measurable / well specified	Multiple expectations; Poorly specified
---	---

2—Measurable & well
specified

2—Measurable & well
specified

1—Partially measurable / well specified	Non-observable verb
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1—Partially measurable / well specified	Multiple expectations
---	--------------------------

Measurability Notes

Instructional
Focus Tag

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

"Understand and interpret the features of ... functions ... **by applying and removing context**" is also poorly specified. It is not clear what this means in terms of observable behavior an assessor should be looking for.

This standard includes two distinct PEs that are unlikely to be assessable with a single performance. ("Build and use models of periodic phenomena..." and "Use structures and patterns to support...")

Because "model" is defined so broadly in MP4 (essentially used as a synonym for "representation"), it's not clear what type of model or models are expected.

Appropriate
supporting work

"Support understanding" is unobservable; it is not clear what specific behavior an educator or assessor would be looking for to determine proficiency.

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

Widely applicable
prerequisite

"Attend to precision of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are reasonable" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

Appropriate
supporting work

Widely applicable
prerequisite

Appropriate
supporting work

"Ask targeted questions" is poorly specified and high inference; assessors must use their own judgment to determine whether the questions students are asking are 'targeted' or not.

Appropriate
supporting work

Appropriate
supporting work

"Attend to precision and reasonableness while using volume formulas..." is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

"Attend to precision and reasonableness when summarizing categorical data in two-way frequency models" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

Appropriate
supporting work

"Understand" is a non-observable verb. If the goal is to be able to know/memorize and restate the formula, then use that language: "Know that the conditional probability is..." If the goal is to be able to use the formula to solve problems, then use that language: "Use the formula to find the conditional probability...." If it is conceptual understanding, use an observable verb to describe the behavior an assessor would look for. (For example, "Explain why the conditional probability of A given B...." "Construct an argument to justify why the conditional probability of A given B..." etc.)

The first two PEs are closely related and it makes sense to have them in the same standard. The third is a separate skill.

Appropriate
supporting work

"Recognize" is a non-observable verb, so it is not clear what observable behavior an educator or assessor would be looking for. Consider language such as "Identify data sets for which such a procedure is not appropriate."

Appropriate
supporting work

Appropriate
supporting work

"Understand" is a non-observable verb. Consider either removing it or using language like "Describe and apply best practices..." or "Explain and apply best practices..."

Widely applicable
prerequisite

"Attend to precision and reasonableness when summarizing and organizing collected data" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

This standard contains four distinct PEs:

- * Use statistical evidence from the analyses to evaluate results and answer questions.
- * Identify ways to refine investigative questions, data collection, visualization, or analysis.
 - * Justify outcomes or estimates of population characteristics, considering their plausibility compared to chance variation, in a variety of formats (verbal, written, visual).
- * Communicate the interpretation of simulated p-values and determine statistical significance.

Appropriate
supporting work

The last two are closely related enough that they could both be evaluated by a single task, but the first two are distinctly different. A student could be proficient in the first, second, or third and fourth PEs without being proficient in the others, making this a difficult standard to assess with a single performance.



Widely applicable
prerequisite

Widely applicable
prerequisite

"Understand" is a non-observable verb. Consider removing the first sentence and rewriting the second to be something like "Use the inverse relationship between exponents and logarithms to solve problems involving exponents and logarithms. (MP 7)." It's the use of these relationships that is the observable behavior tied to the internal cognitive event of "understanding."

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

"Understand and interpret the features of ... functions ... by applying and removing context" is also poorly specified. It is not clear what this means in terms of observable behavior an assessor should be looking for.

This standard includes two distinct PEs that are unlikely to be assessable with a single performance. ("Build and use models of periodic phenomena..." and "Use structures and patterns to support...")

Because "model" is defined so broadly in MP4 (essentially used as a synonym for "representation"), it's not clear what type of model or models are expected.

Appropriate
supporting work

"Support understanding" is unobservable; it is not clear what specific behavior an educator or assessor would be looking for to determine proficiency.

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

Widely applicable
prerequisite

"Attend to precision of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are reasonable" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate supporting work

Appropriate supporting work

Widely applicable prerequisite

"Understand" is a non-observable verb. Consider removing since applying the Law of Sines / Cosines seems to be the observable behavior that would indicate understanding. If not, consider what observable behavior would indicate understanding and change the language accordingly. (Explain, justify, etc.)

Appropriate supporting work

The two PEs described here are both significant enough that they should be assessed via different tasks.

Appropriate supporting work

Instructional Focus		Clarity
Instructional Focus Notes	Clarity & Accessibility Score (0-2)	Clarity & Accessibility Issue Flag

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

1—Partially clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE
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1—Partially
clear and
accessible

Vague/ambiguous language

2—Clear and
accessible

2—Clear and
accessible

1—Partially
clear and
accessible

Insufficient guidance to
understand PE

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Unclear grammar/typo(s)
--	-------------------------

1—Partially clear and accessible	Vague/ambiguous language
--	--------------------------

1—Partially clear and accessible	Unclear grammar/typo(s)
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1—Partially clear and accessible	Insufficient guidance to understand PE
--	---

1—Partially clear and accessible	Unclear grammar/typo(s)
--	-------------------------

2—Clear and accessible	
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1—Partially clear and accessible	Unclear grammar/typo(s)
--	-------------------------

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Insufficient guidance to understand PE
--	---

1—Partially clear and accessible	Other; Unclear grammar/typo(s); Mathematical error/imprecise usage of mathematical term(s)
--	--

2—Clear and
accessible



1—Partially clear and accessible	Unclear grammar/typo(s)
--	-------------------------

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Vague/ambiguous language
--	--------------------------

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE
--	---

1—Partially clear and accessible	Vague/ambiguous language
--	--------------------------

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Insufficient guidance to understand PE
--	---

2—Clear and
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2—Clear and
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2—Clear and
accessible

ty & Accessibility	
Clarity & Accessibility Notes	DOK Level (1-4)

2

2

2

2

"Understand and interpret the features of ... functions ... by applying and removing context" is unclear in terms of what it means, specifically, in terms of a PE for this standard.	3
---	---

Related to the note about poor specificity under the
measurability criteria, it is unclear what kind of
model or models are expected to meet the PE. 2

3

2

The mathematical meaning of the second sentence is
unclear and difficult to parse; though the meaning of
"attend to precision" is discussed in more detail in
the MP descriptions, it's not 100% clear what this
means in terms of performance expectations for this
standard. Similarly, the mathematical meaning of the
clause "carefully evaluate whether the ideas and
processes observed during exploration are reasonable"
is also unclear. 3

2

2

Current grammar is unclear; consider "Justify **the fact** that a quantity increasing exponentially..." 2

"Targeted" is high inference, requiring the educator or assessor to use their own judgment about what it means and whether a student has met the standard. 3

The phrase "concepts of density" (which also appears in other benchmark standards including the CCSS) may be confusing or unclear for some readers. 2

The clause "Attend to precision and reasonableness while using volume formulas " is unclear; it's not 100% clear what this means in terms of performance expectations. When we consider the original CCSS wording of this standard ("Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems"), the addition of "Attend to precision and reasonableness while [using]..." at the beginning feels forced, shifting a clear and measurable standard to one that is vague, unclear, not clearly measurable, and lacking sufficient guidance regarding what the performance expectation is for students. 2

There is something unclear and difficult to parse about the sentence "Describe and represent structures and patterns of data on two categorical variables." It is clear what it would mean to "Describe and represent patterns of data," but it's less clear what it would mean to "Describe and represent structures on two categorical variables." (Or is it, "Describe and represent structures of data on two categorical variables"? Which is equally unclear." 3

2

The clause "Use multiple representations as tools to describe and represent structure to build understanding of the addition rule" (particularly the two infinitive phrases back to back) is ungainly and difficult for the reader to parse. 3

2

3

"Understand and apply best practices for designing sample surveys, experiments, and observational studies" needs additional guidance regarding what the best practices are in order for educators and assessors to be able to determine whether a student has reached proficiency. 3

"Attend to precision and reasonableness when summarizing and organizing collected data to answer an investigative question using tables, graphs, and numerical summary statistics" is ungainly and difficult for the reader to parse.

Looking at the second sentence, the original wording from CCSS is: "Use data from a sample survey to estimate a population mean or proportion." The revised language ("Use models from sample data") is mathematically imprecise; one can use sample data to **create a model** which can then be used to estimate a population mean, but the current wording skips over this step, implying that the sample data *is itself the model*, which is inaccurate.

3

3

"Model a context" is not technically incorrect, but may cause more confusion than language like, for example, "model a situation" or "model a contextual situation." 'Situation' suggests a bounded, self-contained scenario, whereas 'context' suggests the surrounding frame & background that gives meaning to something else (context of a remark, context for a decision); the defining job of 'context' is to be peripheral. For this reason, the phrase "model a context" may come across as taking the background information (context) and promoting it to the object of study (the situation being modeled).

2

3

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3

2

The word "simplify" in mathematics is ambiguous and should be avoided in benchmark/standard documents because "simpler" does not have a rigorous mathematical definition. In many cases what constitutes a "simpler" form of an expression is ambiguous, and many so-called "simplest forms" are just conventions rather than mathematical necessities. For example, both $x^2 + 5x + 6$ and $(x + 2)(x + 3)$ could be seen as "simpler" depending on the goal. Likewise, there is not widespread agreement among mathematicians about whether (for example) $x/2$ simpler than $\frac{1}{2}x$ or $0.5x$, or whether a^{-1} is simpler than $1/a$, whether $(x + 1)/2$ simpler than $x/2 + \frac{1}{2}$, etc. If this standard is referring to writing polynomial sums, products, and powers in forms without parentheses or other grouping symbols, it should state that clearly. (That said, we wouldn't recommend this, as a form with no grouping symbols is not always the form that is easiest to work with in a given situation.)

2

2

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2

"Understand and interpret the features of ... functions
... by applying and removing context" is unclear in
terms of what it means, specifically, in terms of a PE
for this standard. 3

Related to the note about poor specificity under the
measurability criteria, it is unclear what kind of
model or models are expected to meet the PE. 2

3

2

The mathematical meaning of the second sentence is unclear and difficult to parse; though the meaning of "attend to precision" is discussed in more detail in the MP descriptions, it's not 100% clear what this means in terms of performance expectations for this standard. Similarly, the mathematical meaning of the clause "carefully evaluate whether the ideas and processes observed during exploration are reasonable" is also unclear.

3

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2

DOK	Mathematical Rigor	
DOK Notes	Mathematical Rigor Tag(s)	Mathematical Rigor Notes

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual Understanding;
Procedural Skill / Fluency

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Procedural Skill / Fluency;
Applications

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Procedural Skill / Fluency

Procedural Skill / Fluency

Conceptual Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

The intent of this standard seems to be at the DOK 3 level, but there are ways of meeting it that could be limited to DOK 2.

Conceptual Understanding

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.

Applications

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Applications

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Procedural Skill / Fluency

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.

Conceptual Understanding; Applications

Conceptual Understanding; Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

Depending on what the
observable performance
expectation is for
"recognize," this could
potentially be DOK 3. As
written we can only say for
sure that it is at least DOK
2.

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could
potentially be DOK 4
depending on the specifics,
but as written, can only
guarantee DOK 3.

Conceptual
Understanding;
Applications

The type of task could
potentially be DOK 4
depending on the specifics,
but as written, can only
guarantee DOK 3.

Conceptual
Understanding;
Applications

Giving the benefit of the doubt with this standards because it is poorly specified, making it difficult to assess DOK level with confidence.	Procedural Skill / Fluency; Conceptual Understanding; Applications
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The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.	Conceptual Understanding; Applications
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The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.	Procedural Skill / Fluency; Applications
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Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency;
Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
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Procedural Skill /
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Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency

Conceptual
Understanding

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Applications

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Procedural Skill /
Fluency

Procedural Skill /
Fluency

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Procedural Skill /
Fluency;
Conceptual
Understanding

Developmental Appropriateness		
Developmental Appropriateness Score (0-2)	Developmental Appropriateness Flag	Developmental Appropriateness Notes

2—Developmentally appropriate

2—Developmentally appropriate

2—Developmentally appropriate

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Integration of Appropriate Mathematical Practices		
Math Practice Integration	Math Practice Appropriateness	Identify Better Aligned MP Connection (if any and if misaligned)

2—All named practices integrated

2—All named practices appropriate

0—No practices integrated

2—All named practices appropriate

MP4; MP7

0—No practices integrated

2—All named practices appropriate

MP4; MP5

2—All named practices integrated

2—All named practices appropriate

2—All named practices integrated

2—All named practices appropriate

MP3; MP7

2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	MP3; MP7
2—All named practices integrated	2—All named practices appropriate	MP7
1—Any named practices integrated	2—All named practices appropriate	MP7
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	

2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	0—No practices appropriate	MP7; MP4
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2—All named practices integrated	2—All named practices appropriate	MP5
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	2—All named practices appropriate	MP3
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2—All named practices integrated	2—All named practices appropriate	MP6; MP7
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2—All named practices integrated	2—All named practices appropriate	
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2—All named practices integrated	2—All named practices appropriate	
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	2—All named practices appropriate	MP4; MP8
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1—Any named practices integrated	1—Any named practices appropriate	MP7; MP5
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2—All named practices integrated	2—All named practices appropriate	
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2—All named practices integrated	2—All named practices appropriate	MP7
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2—All named practices integrated	2—All named practices appropriate	
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2—All named practices integrated	2—All named practices appropriate	
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2—All named practices integrated	2—All named practices appropriate	MP3; MP7
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2—All named practices integrated	2—All named practices appropriate	MP7
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP3; MP7
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP3; MP7
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2—All named practices integrated	2—All named practices appropriate	MP7
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1—Any named practices integrated	2—All named practices appropriate	MP7
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	0—No practices appropriate	MP3; MP7
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2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

2—All named practices integrated	2—All named practices appropriate	MP3
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Mathematical Practice Integration Notes	Notes	Memo
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	Included in memo counts.	Memo
Looks like this was a typo and that MP 4 is the practice that was intended.	Included in memo counts.	Memo
While MP 2 could be appropriate for this standard, its language does not suggest that that practice is the focus; MP 4 and 5 are the more obvious choices.	Included in memo counts.	Memo
	Included in memo counts.	Memo
	Included in memo counts.	Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

MP 3 is a reasonable match for this standard, but the language in the second sentence of standard is unclear and difficult to parse, making it difficult to tell if MP 6 is meaningfully integrated into the standard. Aspects of MP 6 *could* be aligned to this content if the standard were rewritten to address this issue.

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts.	Memo
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Included in memo counts.	Memo
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Included in memo counts.	Memo
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It is difficult to say whether
MP 2 is appropriately integrated
into the standard, because as
noted earlier, "Contextualize
the implications through data
storytelling" is an unclear PE.

Included in memo counts.	Memo
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Included in memo counts.	Memo
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Included in memo counts.	Memo
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MP 7 can align well with this content, but the clarity and measurability issues with the current wording make it difficult to tell whether MP 7 is currently meaningfully integrated with the content.

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo



Looks like this was a typo and Standard is listed twice in the standards
that MP 4 is the practice that PDF sheet. This instance is included in the Memo
was intended. memo counts.

While MP 2 could be appropriate for this standard, its language does not suggest that that practice is the focus; looks like this was a typo and that MP 5 is the practice that was intended.

Standard is listed twice in the standards PDF sheet. This instance is included in the memo counts.

Memo

Standard is listed twice in the standards PDF sheet. This instance is included in the memo counts.

Memo

Standard is listed twice in the standards PDF sheet. This instance is included in the memo counts.

Memo

Standard is listed twice in the standards PDF sheet.

Standard is listed twice in the standards PDF sheet. This instance is included in the memo counts.

Memo

Standard is listed twice in the standards PDF sheet. This instance seems to have a typo (extra S).

Standard is listed twice in the standards
PDF sheet. This instance is included in the Memo
memo counts.

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Standard is listed twice in the standards
PDF sheet. This instance is included in the Memo
memo counts.

MP 3 is a reasonable match for this standard, but the language in the second sentence of standard is unclear and difficult to parse, making it difficult to tell if MP 6 is meaningfully integrated into the standard. Aspects of MP 6 *could* be aligned to this content if the standard were rewritten to address this issue.

Standard is listed twice in the standards PDF sheet. This instance is included in the memo counts. Memo

Code CS3.F.15 is also used to code this standard text.

Code CS3.F.16 is listed twice in the standards PDF and contains different standard text for each instance.

Modeling is not addressed in the language or content of this standard.

Code CS3.F.16 is also used to code this same standard text. This instance does not include MP3, but the other instance does.

Code CS3.F.17 is listed twice in the standards PDF and contains different standards text in each instance.

Standard is listed twice in the standards PDF sheet. This instance is included in the memo counts. Memo

Standard is listed twice in the standards PDF sheet. This instance is included in the memo counts. Memo

Part/Pathway

Math for All

Math for All

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Domain	Standard ID	Standard Text
Algebra (A)	S3.A.1	<i>Interpret</i> polynomial expressions given in factored form or standard form that represent a quantity in terms of a context. <i>Represent</i> polynomial expressions by using <i>technological tools</i> to produce equivalent forms (standard or factored) that reveal different properties, and <i>interpret one or more of their parts as a single entity</i>. (MP 2, 5, 7)
Algebra (A)	S3.A.2	Create equations and inequalities in one variable to <i>model a context</i> and use them to solve problems. Include equations arising from linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, square root and cube root functions (MP 3)
Algebra (A)	S3.A.3	For exponential models, express as a logarithm the solution to $f(t)=ab^{ct}=d$ where a, c, and d are numbers, and the base b is 2 or 10; evaluate the logarithm using <i>technological tools</i>. (MP 2)
Algebra (A)	S3.A.4	Solve an equation of the form $f(x)=c$ for a simple function f that has an inverse. <i>Use the attributes of inverse relationships</i> to write inverse expressions. Include linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, logarithmic, square root, and cube root functions. (MP7)
Functions (F)	S3.F.1	Understand and interpret the features of polynomial, radical or logarithmic functions represented graphically using interval notation and inequalities by <i>applying and removing context</i>. Focus on these key features: domain, range, intervals of increase and/or decrease, location of absolute maximum and/or absolute minimum, intercepts and end behavior. <i>Build graphic models</i> that satisfy given key features. (MP 2, 4)

Functions (F)	S3.F.2	<i>Build and use models</i> of periodic phenomena with sine and cosine functions that connect real world contexts with amplitude, frequency, and midline. <i>Use structures and patterns</i> to support understanding of a domain extended beyond 0 to 90 degrees, or 0 to $\pi / 2$ radians. (MP 4, 7)
Functions (F)	S3.F.3	Understand and interpret key features (period, midline and amplitude) of sine and cosine functions represented graphically. <i>Build</i> graphic <i>models</i> that satisfy the given key features. (MP 4)
Functions (F)	S3.F.4	<i>Build graphical representations</i> that show key features of polynomial, square root, cube root, exponential, logarithmic, and trigonometric (sine and cosine) functions expressed symbolically. <i>Select and use appropriate tools</i> to graph, by hand for simple cases, and using technology for more complicated cases. (MP 4, 5)
Functions (F)	S3.F.5	Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(x+k)$ by exploring specific values of k for polynomial, square root, cube root, exponential, logarithmic, and trigonometric functions in and out of context. <i>Attend to precision</i> of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are <i>reasonable</i>. (MP 3, 6)
Functions (F)	S3.F.6	<i>Use the attributes of inverse relationships to build models</i> (tables, graphs, verbal descriptions and equations) for the inverses of linear, exponential, and quadratic functions. (MP 4, 7)
Functions (F)	S3.F.7	Determine which function type (polynomial, square root, cubic root, exponential, or trigonometric) best models a given real world context. (MP 4)

Functions (F)	S3.F.8	<i>Justify</i> that a quantity increasing exponentially eventually exceeds a quantity increasing linearly or quadratically, or (more generally) as a polynomial function. (MP 3)
Geometry (G)	S3.G.1	Use geometric shapes, their measures, and their properties to <i>model</i> real world objects and solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost). <i>Use these models to ask targeted and probing questions</i> with respect to area and volume <i>in context</i> . (MP 1, 2, 4)
Geometry (G)	S3.G.2	Apply concepts of density based on area and volume in <i>modeling</i> situations. (MP4)
Geometry (G)	S3.G.3	<i>Attend to precision and reasonableness</i> while using volume formulas for cylinders, pyramids, cones, and spheres to solve problems. (MP 6)
Data Science (D)	S3.D.1	<i>Describe and represent structures and patterns</i> of data on two categorical variables. <i>Attend to precision and reasonableness</i> when summarizing categorical data in two-way frequency models, and <i>construct, justify, and communicate clear and reasonable arguments</i> about possible associations and trends in the data. (MP 3, 6, 7)
Data Science (D)	S3.D.2	<i>Build and use probability models</i> including organized lists, venn-diagrams, tree diagrams, and two-way tables to find or estimate probabilities of compound or conditional events. (MP 4)

Data Science (D)	S3.D.3	<i>Use multiple representations as tools to describe and represent structure</i> to build understanding of the addition rule, $P(A \cup B) = P(A) + P(B) - P(A \cap B)$. Understand the conditional probability of A given B as $P(A \cap B)/P(B)$. Interpret independence of A and B as saying that the conditional probability of B given A is the same as the probability of B. (MP 7)
Data Science (D)	S3.D.4	Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. <i>Select and use physical and/or tech tools</i> to estimate areas under the normal curve. (MP 5)
Data Science (D)	S3.D.5	<i>Formulate statistical investigative questions</i> that are either summary-based or comparative for surveys, observational studies, or experiments using primary and/or secondary data. <i>Select appropriate statistical tools</i> to develop a plan for data collection and analysis to address these questions. (MP 1, 5)
Data Science (D)	S3.D.6	<i>Select appropriate statistical tools</i> to implement a data collection plan for primary data related to an investigative question. When using secondary data, assess its validity and relevance to answering the question. <i>Construct an argument</i> justifying the chosen data collection method (survey, observational study or experiment). Understand and apply best practices for designing sample surveys, experiments, and observational studies. (MP 3, 5)

Data Science (D)	S3.D.7	<i>Attend to precision and reasonableness</i> when summarizing and organizing collected data to answer an investigative question using tables, graphs, and numerical summary statistics. <i>Use models</i> from sample data to estimate population means or proportions. Employ simulation models for random sampling to determine approximate sampling distributions and compute p-values from those distributions. (MP 4, 6)
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Data Science (D)	S3.D.8	Use statistical evidence from the analyses to <i>evaluate results</i> and answer questions. Identify ways to refine investigative questions, data collection, visualization, or analysis. <i>Justify</i> outcomes or estimates of population characteristics, considering their plausibility compared to chance variation, in a variety of formats (verbal, written, visual). Communicate the interpretation of simulated p-values and determine statistical significance. (MP 3, 8)
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Intermediate Algebra Standards

Algebra (A)	CS3.A.5 (Extension of S3.A.2)	Create equations and inequalities in one variable to <i>model a context</i> and use them to solve problems. Include equations arising from polynomial, exponential, rational and radical functions. (MP 3)
Algebra (A)	CS3.A.6 (Extension of S3.A.3)	For exponential models, express as a logarithm the solution to $f(t)=ab^{ct}=d$ where a, b, c, and d are numbers, $b>0$; evaluate the logarithm using <i>technological tools</i>. <i>Justify</i> and use the properties of logarithms to generate equivalent expressions, connecting them to the properties of exponents. (MP 2, 3)

Algebra (A)	CS3. A. 7	Understand the inverse relationship between exponents and logarithms. Use this <i>relationship</i> to solve problems involving exponents and logarithms. (MP 7)
Algebra (A)	CS3. A. 10	Add, subtract, multiply and divide polynomial and rational functions. <i>Justify</i> whether these operations result in new polynomial or rational functions. (MP 3)
Algebra (A)	CS3. A. 11	Identify zeros of polynomial functions <i>using algebraic tools</i> , including factoring or the Remainder Theorem. (MP 5)
Algebra (A)	CS3. A. 12	Expand and simplify polynomial sums, products, and powers using <i>structures and patterns</i> . (MP 7)
Algebra (A)	CS3. A. 13	Solve compound inequalities in one variable, including absolute value inequalities <i>using algebraic or technological tools</i> . (MP 5)
Number System (NS)	CS3. NS. 2	Using the Fundamental Theorem of Algebra, <i>construct arguments</i> that verify the solutions to polynomial equations will always be numbers within the set of complex numbers and will have the form $a + bi$ where a and b are real numbers. (MP 3)
Number System (NS)	CS3. NS. 3	Find solutions for polynomials that are limited to integer coefficients <i>using algebraic or technological tools</i> . (MP 5)
Functions (F)	CS3. F. 9 (Extension of S3.F.1)	Understand and interpret the features of polynomial, radical, rational or logarithmic functions represented graphically using interval notation and inequalities by <i>applying and removing context</i> . Focus on these key features: domain, range, intervals of increase and/or decreasing, location of absolute maximum and/or absolute minimum, intercepts, asymptotes, and end behavior. <i>Build graphic models</i> that satisfy given key features. (MP 2, 4)

Functions (F)	CS3.F.10 (Extension of S3.F.2)	<i>Build and use models</i> of periodic phenomena with trigonometric functions that connect real world contexts with amplitude, frequency, and midline. <i>Use structures and patterns</i> to support understanding of a domain extended beyond 0 to 90 degrees, or 0 to $\pi/2$ radians. (MP 4, 7)
Functions (F)	CS3.F.11 (Extension of S3.F.3)	Understand and interpret key features (period, midline and amplitude/asymptote) of trigonometric functions represented graphically. <i>Build</i> graphic models that satisfy the given key features. (MP 4) <i>Build graphical representations</i> that show key features of polynomial, radical, exponential, logarithmic, rational and trigonometric functions expressed symbolically. <i>Select and use appropriate tools</i> to graph, by hand for simple cases, and use technology for more complicated cases. (MP 4, 5)
Functions (F)	CS3.F.12 (Extension of S3.F.4)	Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, $f(x+k)$ by exploring specific values of k for polynomial, radical, exponential, logarithmic, rational, and trigonometric functions in and out of context. <i>Attend to precision</i> of language and notation while <i>constructing arguments</i> and carefully evaluate whether the ideas and processes observed during exploration are <i>reasonable</i>. (MP 3, 6)
Functions (F)	CS3.F.13 (Extension of S3.F.5)	<i>Build</i> a new function from a composition of functions that models a relationship between two quantities. (MP 4) [Note that this standard appears in the IA pathway as CS3.F.15]
Functions (F)	CS3.F.15	

Functions (F)	CS3.F.16	<i>Verify</i> by composition that one function is the inverse of another function. <i>Build</i> an invertible function from a non-invertible function by restricting the domain. (MP 3, 4) [Note that this standard appears in the IA pathway as CS3.F.17]
Geometry/Trigonometry (G)	CS3.G.4	Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles <i>with and without context</i> . (MP 2)
Geometry/Trigonometry (G)	CS3.G.5	construct the unit circle with degrees and radians. <i>Describe and represent patterns</i> in the unit circle and use them as tools to evaluate the trigonometric functions at

Calculus Pathway Standards

Algebra (A)	CS3.A.8	<i>Model</i> arithmetic and geometric series, including infinite geometric series algebraically, graphically, and numerically. (MP 4)
Algebra (A)	CS3.A.9	<i>Build and use expressions</i> including sigma notation to represent the sum of a finite arithmetic or geometric series. (MP 4)
Number System (NS)	CS3.NS.1	<i>Represent</i> addition, subtraction, and multiplication geometrically on the complex plane. Perform algebraic operations with complex numbers on the complex plane. (MP 7)
Functions (F)	CS3.F.14	Define a curve parametrically, and <i>create a graphical model</i> . (MP 4)
Functions (F)	CS3.F.17	Use inverse trigonometric functions to solve equations and inequalities <i>with and without a context</i> . Determine the <i>reasonableness</i> of solutions using <i>context</i> . (MP 2, 6)

Geometry/Trigonometry (G)	CS3.G.6	<i>Prove</i> the addition and subtraction formulas for sine, cosine and tangent and use them <i>as tools</i> to solve problems. (MP 5)
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Measurability Score (0-2)		Measurability Issue Flag
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2—Measurable & well specified

2—Measurable & well specified

2—Measurable & well specified

2—Measurable & well specified

1—Partially measurable / well specified	Non-observable verb; Poorly specified
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0—Not measurable or poorly specified	Multiple expectations; Non- observable verb; Poorly specified
---	--

1—Partially measurable / well specified	Non-observable verb
---	---------------------

2—Measurable & well
specified

1—Partially measurable / well specified	Multiple expectations; Poorly specified
---	---

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

1—Partially
measurable / well
specified Poorly specified

2—Measurable & well
specified

1—Partially
measurable / well
specified Poorly specified

1—Partially
measurable / well
specified Poorly specified

2—Measurable & well
specified

1—Partially measurable / well specified	Multiple expectations; Non- observable verb
---	---

1—Partially measurable / well specified	Multiple expectations; Non- observable verb
---	---

2—Measurable & well
specified

1—Partially measurable / well specified	Multiple expectations; Non- observable verb
---	---

1—Partially measurable / well specified	Poorly specified
---	------------------

1—Partially measurable / well specified	Multiple expectations
---	--------------------------



2—Measurable & well
specified

2—Measurable & well
specified

1—Partially
measurable / well Non-observable verb
specified

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

1—Partially
measurable / well Non-observable verb
specified

0—Not measurable or poorly specified	Multiple expectations; Non- observable verb; Poorly specified
---	--

1—Partially measurable / well specified	Non-observable verb
---	---------------------

2—Measurable & well specified	
----------------------------------	--

1—Partially measurable / well specified	Multiple expectations; Poorly specified
---	---

2—Measurable & well specified	
----------------------------------	--

2—Measurable & well
specified

1—Partially
measurable / well Non-observable verb
specified

1—Partially
measurable / well Multiple
specified expectations



2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

1—Partially
measurable / well Multiple
specified expectations

2—Measurable & well
specified

2—Measurable & well
specified

Measurability Notes

Instructional
Focus Tag

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

"Understand and interpret the features of ... functions ... **by applying and removing context**" is also poorly specified. It is not clear what this means in terms of observable behavior an assessor should be looking for.

This standard includes two distinct PEs that are unlikely to be assessable with a single performance. ("Build and use models of periodic phenomena...." and "Use structures and patterns to support...")

Because "model" is defined so broadly in MP4 (essentially used as a synonym for "representation"), it's not clear what type of model or models are expected.

Appropriate
supporting work

"Support understanding" is unobservable; it is not clear what specific behavior an educator or assessor would be looking for to determine proficiency.

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

Widely applicable
prerequisite

"Attend to precision of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are reasonable" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

Appropriate
supporting work

Widely applicable
prerequisite

Appropriate
supporting work

"Ask targeted questions" is poorly specified and high inference; assessors must use their own judgment to determine whether the questions students are asking are 'targeted' or not.

Appropriate
supporting work

Appropriate
supporting work

"Attend to precision and reasonableness while using volume formulas..." is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

"Attend to precision and reasonableness when summarizing categorical data in two-way frequency models" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

Appropriate
supporting work

"Understand" is a non-observable verb. If the goal is to be able to know/memorize and restate the formula, then use that language: "Know that the conditional probability is..." If the goal is to be able to use the formula to solve problems, then use that language: "Use the formula to find the conditional probability...."

If it is conceptual understanding, use an observable verb to describe the behavior an assessor would look for. (For example, "Explain why the conditional probability of A given B...." "Construct an argument to justify why the conditional probability of A given B..." etc.)

The first two PEs are closely related and it makes sense to have them in the same standard. The third is a separate skill.

Appropriate
supporting work

"Recognize" is a non-observable verb, so it is not clear what observable behavior an educator or assessor would be looking for. Consider language such as "Identify data sets for which such a procedure is not appropriate."

Appropriate
supporting work

Appropriate
supporting work

"Understand" is a non-observable verb. Consider either removing it or using language like "Describe and apply best practices..." or "Explain and apply best practices..."

Widely applicable
prerequisite

"Attend to precision and reasonableness when summarizing and organizing collected data" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

This standard contains four distinct PEs:

- * Use statistical evidence from the analyses to evaluate results and answer questions.
- * Identify ways to refine investigative questions, data collection, visualization, or analysis.
 - * Justify outcomes or estimates of population characteristics, considering their plausibility compared to chance variation, in a variety of formats (verbal, written, visual).
- * Communicate the interpretation of simulated p-values and determine statistical significance.

Appropriate
supporting work

The last two are closely related enough that they could both be evaluated by a single task, but the first two are distinctly different. A student could be proficient in the first, second, or third and fourth PEs without being proficient in the others, making this a difficult standard to assess with a single performance.

Widely applicable
prerequisite

Widely applicable
prerequisite

"Understand" is a non-observable verb. Consider removing the first sentence and rewriting the second to be something like "Use the inverse relationship between exponents and logarithms to solve problems involving exponents and logarithms. (MP 7)." It's the use of these relationships that is the observable behavior tied to the internal cognitive event of "understanding."

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

"Understand and interpret the features of ... functions ... by applying and removing context" is also poorly specified. It is not clear what this means in terms of observable behavior an assessor should be looking for.

This standard includes two distinct PEs that are unlikely to be assessable with a single performance. ("Build and use models of periodic phenomena...." and "Use structures and patterns to support...")

Because "model" is defined so broadly in MP4 (essentially used as a synonym for "representation"), it's not clear what type of model or models are expected.

Appropriate
supporting work

"Support understanding" is unobservable; it is not clear what specific behavior an educator or assessor would be looking for to determine proficiency.

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

Widely applicable
prerequisite

"Attend to precision of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are reasonable" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

Appropriate
supporting work

Widely applicable
prerequisite

"Understand" is a non-observable verb. Consider removing since applying the Law of Sines / Cosines seems to be the observable behavior that would indicate understanding. If not, consider what observable behavior would indicate understanding and change the language accordingly. (Explain, justify, etc.)

Appropriate
supporting work

The two PEs described here are both significant enough that they should be assessed via different tasks.

Appropriate
supporting work



Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

This standard includes two distinct PEs (define a curve parametrically; create a graphical model).

Appropriate
supporting work

Appropriate
supporting work

Appropriate
supporting work

Instructional Focus		Clarity
Instructional Focus Notes	Clarity & Accessibility Score (0-2)	Clarity & Accessibility Issue Flag

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

1—Partially clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE
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1—Partially clear and accessible	Vague/ambiguous language
--	--------------------------

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Insufficient guidance to understand PE
--	---

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Unclear grammar/typo(s)
--	-------------------------

1—Partially clear and accessible	Vague/ambiguous language
--	--------------------------

1—Partially clear and accessible	Unclear grammar/typo(s)
--	-------------------------

1—Partially clear and accessible	Insufficient guidance to understand PE
--	---

1—Partially clear and accessible	Unclear grammar/typo(s)
--	-------------------------

2—Clear and accessible	
---------------------------	--

1—Partially clear and accessible	Unclear grammar/typo(s)
--	-------------------------

2—Clear and accessible	
---------------------------	--

2—Clear and accessible	
---------------------------	--

1—Partially clear and accessible	Insufficient guidance to understand PE
--	---

1—Partially clear and accessible	Other; Unclear grammar/typo(s); Mathematical error/imprecise usage of mathematical term(s)
--	--

2—Clear and
accessible



1—Partially clear and accessible	Unclear grammar/typo(s)
--	-------------------------

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

1—Partially
clear and
accessible

Vague/ambiguous language

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

1—Partially
clear and
accessible

Vague/ambiguous
language; Insufficient
guidance to understand
PE

1—Partially clear and accessible	Vague/ambiguous language
--	--------------------------

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Insufficient guidance to understand PE
--	---

2—Clear and
accessible

2—Clear and
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2—Clear and
accessible

ty & Accessibility	
Clarity & Accessibility Notes	DOK Level (1-4)

2

2

2

2

"Understand and interpret the features of ... functions ... by applying and removing context" is unclear in terms of what it means, specifically, in terms of a PE for this standard.	3
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Related to the note about poor specificity under the
measurability criteria, it is unclear what kind of
model or models are expected to meet the PE. 2

3

2

The mathematical meaning of the second sentence is
unclear and difficult to parse; though the meaning of
"attend to precision" is discussed in more detail in
the MP descriptions, it's not 100% clear what this
means in terms of performance expectations for this
standard. Similarly, the mathematical meaning of the
clause "carefully evaluate whether the ideas and
processes observed during exploration are reasonable"
is also unclear. 3

2

2

Current grammar is unclear; consider "Justify **the fact** that a quantity increasing exponentially...".

2

"Targeted" is high inference, requiring the educator or assessor to use their own judgment about what it means and whether a student has met the standard.

3

The phrase "concepts of density" (which also appears in other benchmark standards including the CCSS) may be confusing or unclear for some readers.

2

The clause "Attend to precision and reasonableness while using volume formulas " is unclear; it's not 100% clear what this means in terms of performance expectations. When we consider the original CCSS wording of this standard ("Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems"), the addition of "Attend to precision and reasonableness while [using]..." at the beginning feels forced, shifting a clear and measurable standard to one that is vague, unclear, not clearly measurable, and lacking sufficient guidance regarding what the performance expectation is for students.

2

There is something unclear and difficult to parse about the sentence "Describe and represent structures and patterns of data on two categorical variables." It is clear what it would mean to "Describe and represent patterns of data," but it's less clear what it would mean to "Describe and represent structures on two categorical variables." (Or is it, "Describe and represent structures of data on two categorical variables"? Which is equally unclear.)

3

2

The clause "Use multiple representations as tools to describe and represent structure to build understanding of the addition rule" (particularly the two infinitive phrases back to back) is ungainly and difficult for the reader to parse. 3

2

3

"Understand and apply best practices for designing sample surveys, experiments, and observational studies" needs additional guidance regarding what the best practices are in order for educators and assessors to be able to determine whether a student has reached proficiency. 3

"Attend to precision and reasonableness when summarizing and organizing collected data to answer an investigative question using tables, graphs, and numerical summary statistics" is ungainly and difficult for the reader to parse.

Looking at the second sentence, the original wording from CCSS is: "Use data from a sample survey to estimate a population mean or proportion." The revised language ("Use models from sample data") is mathematically imprecise; one can use sample data to **create a model** which can then be used to estimate a population mean, but the current wording skips over this step, implying that the sample data *is itself the model*, which is inaccurate.

3

3

See notes about the phrase "model a context" for CS3.A.5.

2

3

2

3

2

See notes about the word "simplify" in mathematics for
CS3.A.12.

2

2

2

"Understand and interpret the features of ... functions
... by applying and removing context" is unclear in
terms of what it means, specifically, in terms of a PE
for this standard.

3

Related to the note about poor specificity under the
measurability criteria, it is unclear what kind of
model or models are expected to meet the PE. 2

3

2

The mathematical meaning of the second sentence is
unclear and difficult to parse; though the meaning of
"attend to precision" is discussed in more detail in
the MP descriptions, it's not 100% clear what this
means in terms of performance expectations for this
standard. Similarly, the mathematical meaning of the
clause "carefully evaluate whether the ideas and
processes observed during exploration are reasonable"
is also unclear. 3

2

2

2

2



2

2

2

2

3

DOK	Mathematical Rigor	
DOK Notes	Mathematical Rigor Tag(s)	Mathematical Rigor Notes

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.	Conceptual Understanding; Procedural Skill / Fluency
---	---

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.	Procedural Skill / Fluency; Applications
---	---

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.	Procedural Skill / Fluency
---	----------------------------

Procedural Skill / Fluency

Conceptual Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

The intent of this standard seems to be at the DOK 3 level, but there are ways of meeting it that could be limited to DOK 2.

Conceptual
Understanding

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.

Applications

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Applications

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Procedural Skill /
Fluency

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

Depending on what the
observable performance
expectation is for
"recognize," this could
potentially be DOK 3. As
written we can only say for
sure that it is at least DOK
2.

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could
potentially be DOK 4
depending on the specifics,
but as written, can only
guarantee DOK 3.

Conceptual
Understanding;
Applications

The type of task could
potentially be DOK 4
depending on the specifics,
but as written, can only
guarantee DOK 3.

Conceptual
Understanding;
Applications

Giving the benefit of the doubt with this standards because it is poorly specified, making it difficult to assess DOK level with confidence.

Procedural Skill /
Fluency;
Conceptual
Understanding;
Applications

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.

Conceptual
Understanding;
Applications

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Procedural Skill /
Fluency;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency;
Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency

Procedural Skill /
Fluency

Procedural Skill /
Fluency

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency

Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Applications

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Procedural Skill /
Fluency

Procedural Skill /
Fluency

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Procedural Skill /
Fluency

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Procedural Skill /
Fluency

Procedural Skill /
Fluency

Procedural Skill /
Fluency

Procedural Skill /
Fluency;
Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding;
Applications

Developmental Appropriateness		
Developmental Appropriateness Score (0-2)	Developmental Appropriateness Flag	Developmental Appropriateness Notes

2—Developmentally appropriate

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Integration of Appropriate Mathematical Practices		
Math Practice Integration	Math Practice Appropriateness	Identify Better Aligned MP Connection (if any and if misaligned)

2—All named practices integrated	2—All named practices appropriate	
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0—No practices integrated	2—All named practices appropriate	MP4; MP7
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0—No practices integrated	2—All named practices appropriate	MP4; MP5
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2—All named practices integrated	2—All named practices appropriate	
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2—All named practices integrated	2—All named practices appropriate	MP3; MP7
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP3; MP7
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2—All named practices integrated	2—All named practices appropriate	MP7
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1—Any named practices integrated	2—All named practices appropriate	MP7
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	0—No practices appropriate	MP7; MP4
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2—All named practices integrated	2—All named practices appropriate	MP5
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	2—All named practices appropriate	MP3
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2—All named practices integrated	2—All named practices appropriate	MP6; MP7
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2—All named practices integrated	2—All named practices appropriate	
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2—All named practices integrated	2—All named practices appropriate	
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	2—All named practices appropriate	MP4; MP8
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1—Any named practices integrated	1—Any named practices appropriate	MP7; MP5
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2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	MP7
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	MP3; MP7
2—All named practices integrated	2—All named practices appropriate	MP7
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	MP3; MP7

2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP3; MP7
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2—All named practices integrated	2—All named practices appropriate	MP7
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1—Any named practices integrated	2—All named practices appropriate	MP7
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	1—Any named practices appropriate	MP7
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP3
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP3
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Mathematical Practice Integration Notes	Notes	Memo
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	Included in memo counts.	Memo
Looks like this was a typo and that MP 4 is the practice that was intended.	Included in memo counts.	Memo
While MP 2 could be appropriate for this standard, its language does not suggest that that practice is the focus; MP 4 and 5 are the more obvious choices.	Included in memo counts.	Memo
	Included in memo counts.	Memo
	Included in memo counts.	Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

MP 3 is a reasonable match for this standard, but the language in the second sentence of standard is unclear and difficult to parse, making it difficult to tell if MP 6 is meaningfully integrated into the standard. Aspects of MP 6 *could* be aligned to this content if the standard were rewritten to address this issue.

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts.	Memo
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Included in memo counts.	Memo
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Included in memo counts.	Memo
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It is difficult to say whether MP 2 is appropriately integrated into the standard, because as noted earlier, "Contextualize the implications through data storytelling" is an unclear PE.

Included in memo counts.	Memo
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Included in memo counts.	Memo
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Included in memo counts.	Memo
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MP 7 can align well with this content, but the clarity and measurability issues with the current wording make it difficult to tell whether MP 7 is currently meaningfully integrated with the content.

Included in memo counts.

Memo

Included in memo counts.

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Included in memo counts.

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Included in memo counts.

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Included in memo counts.

Memo

Included in memo counts.

Memo



Looks like this was a typo and that MP 4 is the practice that was intended.

Standard is listed twice in the standards PDF sheet.

While MP 2 could be appropriate for this standard, its language does not suggest that that practice is the focus; looks like this was a typo and that MP 5 is the practice that was intended.

Standard is listed twice in the standards PDF sheet.

Standard is listed twice in the standards
PDF sheet.

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Standard is listed twice in the standards
PDF sheet.

Standard is listed twice in the standards
PDF sheet. This instance is included in the Memo
memo counts.

Standard is listed twice in the standards
PDF sheet.

Standard is listed twice in the standards
PDF sheet.

Standard is listed twice in the standards
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Standard is listed twice in the standards
PDF sheet.

Standard is listed twice in the standards
PDF sheet.

Standard is listed twice in the standards
PDF sheet.

MP 3 is a reasonable match for
this standard, but the language
in the second sentence of
standard is unclear and
difficult to parse, making it
difficult to tell if MP 6 is
meaningfully integrated into the
standard. Aspects of MP 6 *could*
be aligned to this content if
the standard were rewritten to
address this issue.

Standard is listed twice in the standards
PDF sheet.

Code CS3.F.16 is also used to code this
standard text.

This instance is included in the memo
counts.

Memo

MP 3 is appropriate. Modeling is not addressed in the language or content of this standard.

Code CS3.F.17 is also used to code this same standard text. This instance includes MP3 (which is appropriate), but the other instance does not include this code. Code CS3.F.16 is listed twice in the standards PDF and contains different standard text for each instance. This instance is included in the memo counts.

Memo

Standard is listed twice in the standards PDF sheet.

Standard is listed twice in the standards PDF sheet.



Included in memo counts.

Memo

Included in memo counts.

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Included in memo counts.

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Included in memo counts.

Memo

Code CS3.F.17 is listed twice in the standards PDF and contains different standards text in each instance. This instance is included in the memo counts.

Memo

Included in memo counts.

Memo

Part/Pathway

Math for All

Math for All

Math for All

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Math for All

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Domain	Standard ID	Standard Text	Measurability Score (0-2)
Algebra (A)	S3.A.1	<i>Interpret</i> polynomial expressions given in factored form or standard form that represent a quantity in terms of a context. <i>Represent</i> polynomial expressions by using <i>technological tools</i> to produce equivalent forms (standard or factored) that reveal different properties, and <i>interpret one or more of their parts as a single entity</i> . (MP 2, 5, 7)	2—Measurable & well specified
Algebra (A)	S3.A.2	Create equations and inequalities in one variable to <i>model a context</i> and use them to solve problems. Include equations arising from linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, square root and cube root functions (MP 3)	2—Measurable & well specified
Algebra (A)	S3.A.3	For exponential models, express as a logarithm the solution to $f(t)=ab^{ct}=d$ where a , c , and d are numbers, and the base b is 2 or 10; evaluate the logarithm using <i>technological tools</i> . (MP 2)	2—Measurable & well specified
Algebra (A)	S3.A.4	Solve an equation of the form $f(x)=c$ for a simple function f that has an inverse. <i>Use the attributes of inverse relationships</i> to write inverse expressions. Include linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, logarithmic, square root, and cube root functions. (MP7)	2—Measurable & well specified
Functions (F)	S3.F.1	Understand and interpret the features of polynomial, radical or logarithmic functions represented graphically using interval notation and inequalities by <i>applying and removing context</i> . Focus on these key features: domain, range, intervals of increase and/or decrease, location of absolute maximum and/or absolute minimum, intercepts and end behavior. <i>Build graphic models</i> that satisfy given key features. (MP 2, 4)	1—Partially measurable / well specified

Functions (F)	S3.F.2	<i>Build and use models</i> of periodic phenomena with sine and cosine functions that connect real world contexts with amplitude, frequency, and midline. <i>Use structures and patterns</i> to support understanding of a domain extended beyond 0 to 90 degrees, or 0 to $\pi / 2$ radians. (MP 4, 7)	0—Not measurable or poorly specified
Functions (F)	S3.F.3	Understand and interpret key features (period, midline and amplitude) of sine and cosine functions represented graphically. <i>Build graphic models</i> that satisfy the given key features. (MP 4)	1—Partially measurable / well specified
Functions (F)	S3.F.4	<i>Build graphical representations</i> that show key features of polynomial, square root, cube root, exponential, logarithmic, and trigonometric (sine and cosine) functions expressed symbolically. <i>Select and use appropriate tools</i> to graph, by hand for simple cases, and using technology for more complicated cases. (MP 4, 5) Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(x+k)$ by exploring specific values of k for polynomial, square root, cube root, exponential, logarithmic, and trigonometric functions in and out of context. <i>Attend to precision</i> of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are <i>reasonable</i>. (MP 3, 6)	2—Measurable & well specified
Functions (F)	S3.F.5	<i>Use the attributes of inverse relationships to build models</i> (tables, graphs, verbal descriptions and equations) for the inverses of linear, exponential, and quadratic functions. (MP 4, 7)	1—Partially measurable / well specified
Functions (F)	S3.F.6	Determine which function type (polynomial, square root, cubic root, exponential, or trigonometric) best models a given real world context. (MP 4)	2—Measurable & well specified
Functions (F)	S3.F.7	<i>Justify</i> that a quantity increasing exponentially eventually exceeds a quantity increasing linearly or quadratically, or (more generally) as a polynomial function. (MP 3)	2—Measurable & well specified
Functions (F)	S3.F.8		2—Measurable & well specified

Geometry (G)	S3.G.1	Use geometric shapes, their measures, and their properties to <i>model</i> real world objects and solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost). <i>Use these models to ask targeted and probing questions</i> with respect to area and volume <i>in context</i> . (MP 1, 2, 4)	1—Partially measurable / well specified
Geometry (G)	S3.G.2	Apply concepts of density based on area and volume in <i>modeling</i> situations. (MP4)	2—Measurable & well specified
Geometry (G)	S3.G.3	<i>Attend to precision and reasonableness</i> while using volume formulas for cylinders, pyramids, cones, and spheres to solve problems. (MP 6)	1—Partially measurable / well specified
Data Science (D)	S3.D.1	<i>Describe and represent structures and patterns</i> of data on two categorical variables. <i>Attend to precision and reasonableness</i> when summarizing categorical data in two-way frequency models, and <i>construct, justify, and communicate clear and reasonable arguments</i> about possible associations and trends in the data. (MP 3, 6, 7)	1—Partially measurable / well specified
Data Science (D)	S3.D.2	<i>Build and use probability models</i> including organized lists, venn-diagrams, tree diagrams, and two-way tables to find or estimate probabilities of compound or conditional events. (MP 4)	2—Measurable & well specified

Data Science (D)	S3.D. 3	<i>Use multiple representations as tools to describe and represent structure</i> to build understanding of the addition rule, $P(A \cup B) = P(A) + P(B) - P(A \cap B)$. Understand the conditional probability of A given B as $P(A \cap B)/P(B)$. Interpret independence of A and B as saying that the conditional probability of B given A is the same as the probability of B. (MP 7)	1—Partially measurable / well specified
Data Science (D)	S3.D. 4	Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. <i>Select and use physical and/or tech tools</i> to estimate areas under the normal curve. (MP 5)	1—Partially measurable / well specified
Data Science (D)	S3.D. 5	<i>Formulate statistical investigative questions</i> that are either summary-based or comparative for surveys, observational studies, or experiments using primary and/or secondary data. Select <i>appropriate statistical tools</i> to develop a plan for data collection and analysis to address these questions. (MP 1, 5) <i>Select appropriate statistical tools</i> to implement a data collection plan for primary data related to an investigative question. When using secondary data, assess its validity and relevance to answering the question. <i>Construct an argument</i> justifying the chosen data collection method (survey, observational study or experiment). Understand and apply best practices for designing sample surveys, experiments, and observational studies. (MP 3, 5)	2—Measurable & well specified
Data Science (D)	S3.D. 6	<i>Select appropriate statistical tools</i> to implement a data collection plan for primary data related to an investigative question. When using secondary data, assess its validity and relevance to answering the question. <i>Construct an argument</i> justifying the chosen data collection method (survey, observational study or experiment). Understand and apply best practices for designing sample surveys, experiments, and observational studies. (MP 3, 5)	1—Partially measurable / well specified

Data Science (D)	S3.D.7	<i>Attend to precision and reasonableness</i> when summarizing and organizing collected data to answer an investigative question using tables, graphs, and numerical summary statistics. <i>Use models</i> from sample data to estimate population means or proportions. Employ simulation models for random sampling to determine approximate sampling distributions and compute p-values from those distributions. (MP 4, 6)	1—Partially measurable / well specified
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Data Science (D)	S3.D.8	Use statistical evidence from the analyses to <i>evaluate results</i> and answer questions. Identify ways to refine investigative questions, data collection, visualization, or analysis. <i>Justify</i> outcomes or estimates of population characteristics, considering their plausibility compared to chance variation, in a variety of formats (verbal, written, visual). Communicate the interpretation of simulated p-values and determine statistical significance. (MP 3, 8)	1—Partially measurable / well specified
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Data Science Pathway Standards

Data Science (D)	DS3.D.9	<i>Represent</i> categorical and quantitative information in organized tables suitable for analysis. <i>Attend to precision</i> in data processing by filtering through logical statements, and transforming data with a detailed set of ordered tasks that are repeatable by others or a computer. (MP 6, 7)	1—Partially measurable / well specified
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Data Science (D)	DS3.D.10	Describe univariate displays of large sets of data using technology. <i>Ask targeted questions</i> about the displays, including shape (skewed, symmetric), center, variability, and unusual outcomes. (MP 1)	1—Partially measurable / well specified
Data Science (D)	DS3.D.11	<i>Describe and represent relationships</i> between two quantitative variables. Create visual representations with or without technology, addressing strength, form, direction and unusual observations in the data. (MP 7)	2—Measurable & well specified
Data Science (D)	DS3.D.12	<i>Build and use models</i> to describe relationships between two continuous variables using linear regression. Explain which variable(s) should be used for prediction. <i>Construct reasonable arguments</i> for appropriate and inappropriate use of the model for practical decision making. (MP 3, 4)	2—Measurable & well specified
Data Science (D)	DS3.D.13	<i>Describe the relationship</i> between the distribution of a population, the distribution of a sample, and a sampling distribution (e.g., the distribution of sample means). <i>Describe</i> sampling distributions through summary statistics, including the mean and the standard deviation. (MP 1)	2—Measurable & well specified
Data Science (D)	DS3.D.14	Use the central limit theorem to <i>represent</i> the distribution of sample means of large data sets as a normal distribution. <i>Assess conjectures</i> about the population means based on the sample averages through probability calculations from the normal distribution. (MP 7, 8)	2—Measurable & well specified
Data Science (D)	DS3.D.15	<i>Use statistical tools</i> to validate the appropriateness and usefulness of a model, including visual and numeric assessments of model fit. Use hypothesis testing and simulation to <i>develop and assess</i> conjectures about the model. (MP 5, 8)	1—Partially measurable / well specified

Data Science (D)	DS3. D. 16	<i>Evaluate results</i> reached from data analysis. Identify ways to refine investigative questions, data collection, visualization, or analysis. <i>Justify and communicate clear and reasonable</i> conclusions. (MP 3)	0—Not measurable or poorly specified
Data Science (D)	DS3. D. 17	Determine the appropriate scope of generalization based on the method of sampling. <i>Contextualize</i> the implications through data storytelling. (MP 2)	1—Partially measurable / well specified
Data Science (D)	DS3. D. 18	Understand the role of random assignment in experiments and the implications for cause-and-effect interpretations. <i>Justify</i> conclusions. (MP 3)	1—Partially measurable / well specified
Data Science (D)	DS3. D. 19	<i>Construct reasonable arguments</i> regarding the issues of data bias and confounding variables in observational studies and their implications for interpretation. (MP 3)	1—Partially measurable / well specified
Data Science (D)	DS3. D. 20	<i>Use precision in practices</i> for handling large sets of data that enhance reproducibility and ensure ethical use, including descriptions of alterations, and understand when data may contain sensitive information. (MP 6)	0—Not measurable or poorly specified

Measureability

Measurability Issue
Flag

Measurability Notes

Non-observable verb; Poorly specified	"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.
	"Understand and interpret the features of ... functions ... by applying and removing context " is also poorly specified. It is not clear what this means in terms of observable behavior an assessor should be looking for.

This standard includes two distinct PEs that are unlikely to be assessable with a single performance. ("Build and use models of periodic phenomena..." and "Use structures and patterns to support...")

Multiple expectations; Non-observable verb; Poorly specified

Because "model" is defined so broadly in MP4 (essentially used as a synonym for "representation"), it's not clear what type of model or models are expected.

"Support understanding" is unobservable; it is not clear what specific behavior an educator or assessor would be looking for to determine proficiency.

Non-observable verb

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Multiple expectations; Poorly specified

"Attend to precision of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are reasonable" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Poorly specified "Ask targeted questions" is poorly specified and high inference; assessors must use their own judgment to determine whether the questions students are asking are 'targeted' or not.

Poorly specified "Attend to precision and reasonableness while using volume formulas..." is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Poorly specified "Attend to precision and reasonableness when summarizing categorical data in two-way frequency models" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Multiple
expectations; Non-
observable verb

"Understand" is a non-observable verb. If the goal is to be able to know/memorize and restate the formula, then use that language: "Know that the conditional probability is..." If the goal is to be able to use the formula to solve problems, then use that language: "Use the formula to find the conditional probability...." If it is conceptual understanding, use an observable verb to describe the behavior an assessor would look for. (For example, "Explain why the conditional probability of A given B...." "Construct an argument to justify why the conditional probability of A given B..." etc.) The first two PEs are closely related and it makes sense to have them in the same standard. The third is a separate skill.

Multiple
expectations; Non-
observable verb

"Recognize" is a non-observable verb, so it is not clear what observable behavior an educator or assessor would be looking for. Consider language such as "Identify data sets for which such a procedure is not appropriate."

Multiple
expectations; Non-
observable verb

"Understand" is a non-observable verb. Consider either removing it or using language like "Describe and apply best practices..." or "Explain and apply best practices..."

Poorly specified "Attend to precision and reasonableness when summarizing and organizing collected data" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Multiple expectations This standard contains four distinct PEs:

- * Use statistical evidence from the analyses to evaluate results and answer questions.
- * Identify ways to refine investigative questions, data collection, visualization, or analysis.
 - * Justify outcomes or estimates of population characteristics, considering their plausibility compared to chance variation, in a variety of formats (verbal, written, visual).
- * Communicate the interpretation of simulated p-values and determine statistical significance.

The last two are closely related enough that they could both be evaluated by a single task, but the first two are distinctly different. A student could be proficient in the first, second, or third and fourth PEs without being proficient in the others, making this a difficult standard to assess with a single performance.

Poorly specified The clause "Attend to precision in data processing by filtering through logical statements..." is unclear, making it difficult to understand what the performance expectations are for this standard. The second sentence/PE is also poorly specified.

Poorly specified "Ask targeted questions" is poorly specified and high inference; assessors must use their own judgment to determine whether the questions students are asking are 'targeted' or not.

Multiple expectations This standard includes two distinct PEs:
* Use statistical tools to validate the appropriateness and usefulness of a model, including visual and numeric assessments of model fit.
* Use hypothesis testing and simulation to develop and assess conjectures about the model.

The first one is an example of the second, which makes it challenging to assess whether a student has met the full standard. A way to address this issue could be to reword it as " Use hypothesis testing and simulation to develop and assess conjectures about the model; for example, using statistical tools to validate the appropriateness and usefulness of a model, including visual and numeric assessments of model fit."

Too broad; Too vague	This standard is so broad that it's not clear what the performance expectation(s) would be. "Evaluate results reached from data analysis" could mean a wide range of things; "Identify ways to refine investigative questions" etc. leaves to the discretion of the assessor what those ways should be. Given the broadness and vagueness of the first two sentences, it is also unclear how the third sentence would be measured & assessed.
Poorly specified; Too broad	This standard could refer to a wide range of statistical techniques and so would be difficult to assess with a single performance. 'Appropriate' is also poorly specified; since the standard is so broad, assessors will need to use their own judgment regarding whether the scope of generalization is appropriate or not.
Non-observable verb	"Understanding the role of random assignment...and implications" isn't something that can be measured.
Too broad; Poorly specified	Especially because data science standards are less common and less familiar to many educators, the lack of specificity in this standard may make it difficult for materials designers, teachers, and assessors to understand specifically what is being asked of students. Which issues of data bias? What implications?
Too vague; Too broad; Non-observable verb	"Use precision in practices for handling large sets of data that enhance reproducibility and ensure ethical use" is broad and vague. It is not clear what practices are intended, so unclear how this PE would be assessed. "Understand when data may contain sensitive information" is both non-observable, and also vague; the standard doesn't specify what sensitive information is or how students would determine this.

Instructional Focus		Clarity	
Instructional Focus Tag	Instructional Focus Notes	Clarity & Accessibility Score (0-2)	Clarity & Accessibility Issue Flag

Widely applicable prerequisite

2—Clear and accessible

Widely applicable prerequisite

2—Clear and accessible

Widely applicable prerequisite

2—Clear and accessible

Widely applicable prerequisite

2—Clear and accessible

Widely applicable prerequisite

1—Partially clear and accessible

Vague/ambiguous language; Insufficient guidance to understand PE

Appropriate supporting work	1—Partially clear and accessible	Vague/ambiguous language
Widely applicable prerequisite	2—Clear and accessible	
Widely applicable prerequisite	2—Clear and accessible	
Appropriate supporting work	1—Partially clear and accessible	Insufficient guidance to understand PE
Appropriate supporting work	2—Clear and accessible	
Widely applicable prerequisite	2—Clear and accessible	
Appropriate supporting work	1—Partially clear and accessible	Unclear grammar/typo(s)

Appropriate supporting work	1—Partially clear and accessible	Vague/ambiguous language
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Appropriate supporting work	1—Partially clear and accessible	Unclear grammar/typo(s)
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Appropriate supporting work	1—Partially clear and accessible	Insufficient guidance to understand PE
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Appropriate supporting work	1—Partially clear and accessible	Unclear grammar/typo(s)
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Appropriate supporting work	2—Clear and accessible	
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Appropriate
supporting work

1—Partially
clear and
accessible

Unclear grammar/typo(s)

Appropriate
supporting work

2—Clear and
accessible

Appropriate
supporting work

2—Clear and
accessible

Widely applicable
prerequisite

1—Partially
clear and
accessible

Insufficient guidance to
understand PE

Appropriate
supporting work

1—Partially
clear and
accessible

Other; Unclear
grammar/typo(s);
Mathematical
error/imprecise usage of
mathematical term(s)

Appropriate
supporting work

2—Clear and
accessible



Appropriate
supporting work

1—Partially
clear and
accessible

Insufficient guidance to
understand PE; Other

Appropriate supporting work	1—Partially clear and accessible	Vague/ambiguous language
Appropriate supporting work	2—Clear and accessible	
Widely applicable prerequisite	1—Partially clear and accessible	Unclear grammar/typo(s)
Widely applicable prerequisite	2—Clear and accessible	
Appropriate supporting work	2—Clear and accessible	
Appropriate supporting work	1—Partially clear and accessible	Other

Appropriate
supporting work

0—Not clear and
accessible

Insufficient guidance to
understand PE

Appropriate
supporting work

1—Partially
clear and
accessible

Jargon; Vague/ambiguous
language; Insufficient
guidance to understand
PE

Appropriate
supporting work

2—Clear and
accessible

Appropriate
supporting work

1—Partially
clear and
accessible

Insufficient guidance to
understand PE

Appropriate
supporting work

0—Not clear and
accessible

Vague/ambiguous
language; Insufficient
guidance to understand
PE

ty & Accessibility	
Clarity & Accessibility Notes	DOK Level (1-4)

2

2

2

2

"Understand and interpret the features of ... functions ... by applying and removing context" is unclear in terms of what it means, specifically, in terms of a PE for this standard.	3
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Related to the note about poor specificity under the
measurability criteria, it is unclear what kind of
model or models are expected to meet the PE. 2

3

2

The mathematical meaning of the second sentence is
unclear and difficult to parse; though the meaning of
"attend to precision" is discussed in more detail in
the MP descriptions, it's not 100% clear what this
means in terms of performance expectations for this
standard. Similarly, the mathematical meaning of the
clause "carefully evaluate whether the ideas and
processes observed during exploration are reasonable"
is also unclear. 3

2

2

Current grammar is unclear; consider "Justify **the fact**
that a quantity increasing exponentially...". 2

"Targeted" is high inference, requiring the educator or
assessor to use their own judgment about what it means
and whether a student has met the standard. 3

The phrase "concepts of density" (which also appears in
other benchmark standards including the CCSS) may be
confusing or unclear for some readers. 2

The clause "Attend to precision and reasonableness
while using volume formulas " is unclear; it's not 100%
clear what this means in terms of performance
expectations. When we consider the original CCSS
wording of this standard ("Use volume formulas for
cylinders, pyramids, cones, and spheres to solve
problems"), the addition of "Attend to precision and
reasonableness while [using]..." at the beginning feels
forced, shifting a clear and measurable standard to one
that is vague, unclear, not clearly measurable, and
lacking sufficient guidance regarding what the
performance expectation is for students. 2

There is something unclear and difficult to parse about
the sentence "Describe and represent structures and
patterns of data on two categorical variables." It is
clear what it would mean to "Describe and represent
patterns of data," but it's less clear what it would
mean to "Describe and represent structures on two
categorical variables." (Or is it, "Describe and
represent structures of data on two categorical
variables"? Which is equally unclear." 3

2

The clause "Use multiple representations as tools to describe and represent structure to build understanding of the addition rule" (particularly the two infinitive phrases back to back) is ungainly and difficult for the reader to parse. 3

2

3

"Understand and apply best practices for designing sample surveys, experiments, and observational studies" needs additional guidance regarding what the best practices are in order for educators and assessors to be able to determine whether a student has reached proficiency. 3

"Attend to precision and reasonableness when summarizing and organizing collected data to answer an investigative question using tables, graphs, and numerical summary statistics" is ungainly and difficult for the reader to parse.

Looking at the second sentence, the original wording from CCSS is: "Use data from a sample survey to estimate a population mean or proportion." The revised language ("Use models from sample data") is mathematically imprecise; one can use sample data to **create a model** which can then be used to estimate a population mean, but the current wording skips over this step, implying that the sample data *is itself the model*, which is inaccurate.

3

3

See note under measurability -- the issues with the standard impact both measurability and clarity in similar ways. The clause "Attend to precision in data processing by filtering through logical statements..." may be confusing or unclear for some readers; though the meaning of "attend to precision" is discussed in more detail in the MP descriptions, it is not completely clear what this means in terms of performance expectations for this standard.

2

The second sentence/PE is also ungainly and difficult for the reader to parse.

"Targeted" is high inference, requiring the educator or
assessor to use their own judgment about what it means
and whether a student has met the standard. 2

2

There is something unclear about the construction of of
the third sentence: "Construct reasonable arguments for
appropriate and inappropriate use of the model for
practical decision making. (MP 3, 4)." What would it
mean to construct a reasonable argument for the
inappropriate use of the model? 3

3

2

The clarity issue here is related to the measurability
issue described under that criteria. 3

Similar to the issue described under measurability, it is difficult to understand what the PEs for this standard actually are. 3

The sentence "Contextualize the implications through data storytelling. (MP 2)" is unclear. An assessor does not have enough information about the performance expectation to determine whether a student is meeting the standard. 3

2

See the note under measurability -- the issues with the standard impact both measurability and clarity in similar ways. 3

See note under measurability -- the issues with the standard impact both measurability and clarity in similar ways. It is currently not clear what practices are being referred to, or what it means to "understand when data may contain sensitive information." Though the meaning of "attend to precision" is discussed in more detail in the MP descriptions, it is not completely clear what this means in terms of performance expectations for this standard. 3

DOK	Mathematical Rigor	
DOK Notes	Mathematical Rigor Tag(s)	Mathematical Rigor Notes

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual Understanding;
Procedural Skill / Fluency

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Procedural Skill / Fluency;
Applications

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Procedural Skill / Fluency

Procedural Skill / Fluency

Conceptual Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2. The intent of this standard seems to be at the DOK 3 level, but there are ways of meeting it that could be limited to DOK 2.

Conceptual
Understanding;
Applications

Conceptual
Understanding

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.

Applications

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Applications

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Procedural Skill / Fluency

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.

Conceptual Understanding; Applications

Conceptual Understanding; Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

Depending on what the
observable performance
expectation is for
"recognize," this could
potentially be DOK 3. As
written we can only say for
sure that it is at least DOK
2.

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could
potentially be DOK 4
depending on the specifics,
but as written, can only
guarantee DOK 3.

Conceptual
Understanding;
Applications

The type of task could
potentially be DOK 4
depending on the specifics,
but as written, can only
guarantee DOK 3.

Conceptual
Understanding;
Applications

Giving the benefit of the doubt with this standards because it is poorly specified, making it difficult to assess DOK level with confidence.	Procedural Skill / Fluency; Conceptual Understanding; Applications
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The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.	Conceptual Understanding; Applications
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Because of the specificity and clarity issues in this standard, it is difficult to know for sure what level of DOK is represented. The minimum DOK level is likely 2.	Applications
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Conceptual
Understanding;
Applications

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Applications

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Applications

Conceptual
Understanding

Conceptual
Understanding;
Applications

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.

Applications

Developmental Appropriateness		
Developmental Appropriateness Score (0-2)	Developmental Appropriateness Flag	Developmental Appropriateness Notes

2—Developmentally appropriate

2—Developmentally appropriate

2—Developmentally appropriate

2—Developmentally appropriate

2—Developmentally appropriate

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Integration of Appropriate Mathematical Practices		
Math Practice Integration	Math Practice Appropriateness	Identify Better Aligned MP Connection (if any and if misaligned)

2—All named practices integrated	2—All named practices appropriate	
0—No practices integrated	2—All named practices appropriate	MP4; MP7
0—No practices integrated	2—All named practices appropriate	MP4; MP5
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	MP3; MP7

2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

2—All named practices integrated	2—All named practices appropriate	MP3; MP7
-------------------------------------	--------------------------------------	----------

2—All named practices integrated	2—All named practices appropriate	MP7
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1—Any named practices integrated	2—All named practices appropriate	MP7
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	0—No practices appropriate	MP7; MP4
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2—All named practices integrated	2—All named practices appropriate	MP5
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2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

0—No practices integrated	2—All named practices appropriate	MP3
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2—All named practices integrated	2—All named practices appropriate	MP6; MP7
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	0—No practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP5
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2—All named practices integrated	2—All named practices appropriate	MP4
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP6
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	0—No practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	0—No practices appropriate
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Mathematical Practice Integration Notes	Notes	Memo
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	Included in memo counts.	Memo
Looks like this was a typo and that MP 4 is the practice that was intended.	Included in memo counts.	Memo
While MP 2 could be appropriate for this standard, its language does not suggest that that practice is the focus; MP 4 and 5 are the more obvious choices.	Included in memo counts.	Memo
	Included in memo counts.	Memo
	Included in memo counts.	Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

MP 3 is a reasonable match for this standard, but the language in the second sentence of standard is unclear and difficult to parse, making it difficult to tell if MP 6 is meaningfully integrated into the standard. Aspects of MP 6 *could* be aligned to this content if the standard were rewritten to address this issue.

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

It is difficult to say whether MP 2 is appropriately integrated into the standard, because as noted earlier, "Contextualize the implications through data storytelling" is an unclear PE.

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

MP 7 can align well with this content, but the clarity and measurability issues with the current wording make it difficult to tell whether MP 7 is currently meaningfully integrated with the content.

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Language in the standard does
not reflect MP7.

Because of the clarity issues
with the second sentence, it is
not possible to determine
whether MP 6 is meaningfully
integrated or in alignment with
the content.

Included in memo counts.

Memo

The phrase "using technology"
clearly connects this standard
to MP5.

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts. Memo

It is difficult to say whether MP 2 is appropriately integrated into the standard, because as noted earlier, "Contextualize the implications through data storytelling" is an unclear PE.

Included in memo counts. Memo

For that reason, it is also difficult to determine what MP, if any, would be a better match.

Included in memo counts. Memo

Included in memo counts. Memo

It is possible that MP6 could be a good match for this content, but the clarity and measurability issues with the current wording make it difficult to tell for sure whether it is currently meaningfully integrated

Included in memo counts. Memo

Part/Pathway

Math for All

Math for All

Math for All

Math for All

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Math for All

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Data Science

Data Science

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Data Science

Domain	Standard ID	Standard Text
Algebra (A)	S3.A.1	<i>Interpret</i> polynomial expressions given in factored form or standard form that represent a quantity in terms of a context. <i>Represent</i> polynomial expressions by using <i>technological tools</i> to produce equivalent forms (standard or factored) that reveal different properties, and <i>interpret one or more of their parts as a single entity</i>. (MP 2, 5, 7)
Algebra (A)	S3.A.2	Create equations and inequalities in one variable to <i>model a context</i> and use them to solve problems. Include equations arising from linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, square root and cube root functions. (MP 3)
Algebra (A)	S3.A.3	For exponential models, express as a logarithm the solution to $f(t)=ab^{ct} = d$ where a, c, and d are numbers, and the base b is 2 or 10; evaluate the logarithm using <i>technological tools</i>. (MP 2)
Algebra (A)	S3.A.4	Solve an equation of the form $f(x)=c$ for a simple function f that has an inverse. <i>Use the attributes of inverse relationships</i> to write inverse expressions. Include linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, logarithmic, square root, and cube root functions. (MP7)
Functions (F)	S3.F.1	Understand and interpret the features of polynomial, radical or logarithmic functions represented graphically using interval notation and inequalities by <i>applying and removing context</i>. Focus on these key features: domain, range, intervals of increase and/or decrease, location of absolute maximum and/or absolute minimum, intercepts and end behavior. <i>Build graphic models</i> that satisfy given key features. (MP 2, 4)

Functions (F)	S3.F.2	<i>Build and use models</i> of periodic phenomena with sine and cosine functions that connect real world contexts with amplitude, frequency, and midline. <i>Use structures and patterns</i> to support understanding of a domain extended beyond 0 to 90 degrees, or 0 to $\pi / 2$ radians. (MP 4, 7)
Functions (F)	S3.F.3	Understand and interpret key features (period, midline and amplitude) of sine and cosine functions represented graphically. <i>Build</i> graphic <i>models</i> that satisfy the given key features. (MP 4)
Functions (F)	S3.F.4	<i>Build graphical representations</i> that show key features of polynomial, square root, cube root, exponential, logarithmic, and trigonometric (sine and cosine) functions expressed symbolically. <i>Select and use appropriate tools</i> to graph, by hand for simple cases, and using technology for more complicated cases. (MP 4, 5)
Functions (F)	S3.F.5	Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(x+k)$ by exploring specific values of k for polynomial, square root, cube root, exponential, logarithmic, and trigonometric functions in and out of context. <i>Attend to precision</i> of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are <i>reasonable</i>. (MP 3, 6)
Functions (F)	S3.F.6	<i>Use the attributes of inverse relationships to build models</i> (tables, graphs, verbal descriptions and equations) for the inverses of linear, exponential, and quadratic functions. (MP 4, 7)
Functions (F)	S3.F.7	Determine which function type (polynomial, square root, cubic root, exponential, or trigonometric) best models a given real world context. (MP 4)

Functions (F)	S3.F.8	<i>Justify</i> that a quantity increasing exponentially eventually exceeds a quantity increasing linearly or quadratically, or (more generally) as a polynomial function. (MP 3)
Geometry (G)	S3.G.1	Use geometric shapes, their measures, and their properties to <i>model</i> real world objects and solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost). <i>Use these models to ask targeted and probing questions</i> with respect to area and volume <i>in context</i> . (MP 1, 2, 4)
Geometry (G)	S3.G.2	Apply concepts of density based on area and volume in <i>modeling</i> situations. (MP4)
Geometry (G)	S3.G.3	<i>Attend to precision and reasonableness</i> while using volume formulas for cylinders, pyramids, cones, and spheres to solve problems. (MP 6)
Data Science (D)	S3.D.1	<i>Describe and represent structures and patterns</i> of data on two categorical variables. <i>Attend to precision and reasonableness</i> when summarizing categorical data in two-way frequency models, and <i>construct, justify, and communicate clear and reasonable arguments</i> about possible associations and trends in the data. (MP 3, 6, 7)
Data Science (D)	S3.D.2	<i>Build and use probability models</i> including organized lists, venn-diagrams, tree diagrams, and two-way tables to find or estimate probabilities of compound or conditional events. (MP 4)

Data Science (D)	S3.D.3	<i>Use multiple representations as tools to describe and represent structure</i> to build understanding of the addition rule, $P(A \cup B) = P(A) + P(B) - P(A \cap B)$. Understand the conditional probability of A given B as $P(A \cap B)/P(B)$. Interpret independence of A and B as saying that the conditional probability of B given A is the same as the probability of B. (MP 7)
Data Science (D)	S3.D.4	Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. <i>Select and use physical and/or tech tools</i> to estimate areas under the normal curve. (MP 5)
Data Science (D)	S3.D.5	<i>Formulate statistical investigative questions</i> that are either summary-based or comparative for surveys, observational studies, or experiments using primary and/or secondary data. <i>Select appropriate statistical tools</i> to develop a plan for data collection and analysis to address these questions. (MP 1, 5)
Data Science (D)	S3.D.6	<i>Select appropriate statistical tools</i> to implement a data collection plan for primary data related to an investigative question. When using secondary data, assess its validity and relevance to answering the question. <i>Construct an argument</i> justifying the chosen data collection method (survey, observational study or experiment). Understand and apply best practices for designing sample surveys, experiments, and observational studies. (MP 3, 5)

Data Science (D)	S3.D.7	<i>Attend to precision and reasonableness</i> when summarizing and organizing collected data to answer an investigative question using tables, graphs, and numerical summary statistics. <i>Use models</i> from sample data to estimate population means or proportions. Employ simulation models for random sampling to determine approximate sampling distributions and compute p-values from those distributions. (MP 4, 6)
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Data Science (D)	S3.D.8	Use statistical evidence from the analyses to <i>evaluate results</i> and answer questions. Identify ways to refine investigative questions, data collection, visualization, or analysis. <i>Justify</i> outcomes or estimates of population characteristics, considering their plausibility compared to chance variation, in a variety of formats (verbal, written, visual). Communicate the interpretation of simulated p-values and determine statistical significance. (MP 3, 8)
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Algebra (A)	CS3.A.5 (Extension of S3.A.2)	Create equations and inequalities in one variable to <i>model a context</i> and use them to solve problems. Include equations arising from polynomial, exponential, rational and radical functions. (MP 3)
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Algebra (A)	CS3.A.6 (Extension of S3.A.3)	For exponential models, express as a logarithm the solution to $f(t)=ab^{ct}=d$ where a , b , c , and d are numbers, $b>0$; evaluate the logarithm using <i>technological tools</i> . <i>Justify</i> and use the properties of logarithms to generate equivalent expressions, connecting them to the properties of exponents. (MP 2, 3)
Algebra (A)	CS3.A.7	Understand the inverse relationship between exponents and logarithms. Use this <i>relationship</i> to solve problems involving exponents and logarithms. (MP 7)
Algebra (A)	CS3.A.10	Add, subtract, multiply and divide polynomial and rational functions. <i>Justify</i> whether these operations result in new polynomial or rational functions. (MP 3)
Algebra (A)	CS3.A.11	Identify zeros of polynomial functions <i>using algebraic tools</i> , including factoring or the Remainder Theorem. (MP 5)
Algebra (A)	CS3.A.12	Expand and simplify polynomial sums, products, and powers using <i>structures and patterns</i> . (MP 7)
Algebra (A)	CS3.A.13	Solve compound inequalities in one variable, including absolute value inequalities <i>using algebraic or technological tools</i> . (MP 5)

Number System (NS)	CS3.NS.2	Using the Fundamental Theorem of Algebra, <i>construct arguments</i> that verify the solutions to polynomial equations will always be numbers within the set of complex numbers and will have the form $a + bi$ where a and b are real numbers. (MP 3)
Number System (NS)	CS3.NS.3	Find solutions for polynomials that are limited to integer coefficients <i>using algebraic or technological tools</i> . (MP 5) Understand and interpret the features of polynomial, radical, rational or logarithmic functions represented graphically using interval notation and inequalities <i>by applying and removing context</i> . Focus on these key features: domain, range, intervals of increase and/or decreasing, location of absolute maximum and/or absolute minimum, intercepts, asymptotes, and end behavior. <i>Build graphic models</i> that satisfy given key features. (MP 2, 4)
Functions (F)	CS3.F.9 (Extension of S3.F.1)	
Functions (F)	CS3.F.10 (Extension of S3.F.2)	<i>Build and use models</i> of periodic phenomena with trigonometric functions that connect real world contexts with amplitude, frequency, and midline. <i>Use structures and patterns</i> to support understanding of a domain extended beyond 0 to 90 degrees, or 0 to $\pi/2$ radians. (MP 4, 7)
Functions (F)	CS3.F.11 (Extension of S3.F.3)	Understand and interpret key features (period, midline and amplitude/asymptote) of trigonometric functions represented graphically. <i>Build graphic models</i> that satisfy the given key features. (MP 4)
Functions (F)	CS3.F.12 (Extension of S3.F.4)	<i>Build graphical representations</i> that show key features of polynomial, radical, exponential, logarithmic, rational and trigonometric functions expressed symbolically. <i>Select and use appropriate tools</i> to graph, by hand for simple cases, and use technology for more complicated cases. (MP 4, 5)

Functions (F)	CS3.F.13 (Extension of S3.F.5)	Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, $f(x+k)$ by exploring specific values of k for polynomial, radical, exponential, logarithmic, rational, and trigonometric functions in and out of context. <i>Attend to precision</i> of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are <i>reasonable</i> . (MP 3, 6)
Functions (F)	CS3.F.16	<i>Build</i> a new function from a composition of functions that <i>models a relationship</i> between two quantities. (MP 4)
Functions (F)	CS3.F.17	Verify by composition that one function is the inverse of another function. <i>Build an invertible function</i> from a non-invertible function by restricting the domain. (MP 4)
Geometry/Trigonometry (G)	CS3.G.4	Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles <i>with and without context</i> . (MP 2)
Geometry/Trigonometry (G)	CS3.G.5	Use special triangles to solve problems construct the unit circle with degrees and radians. <i>Describe and represent patterns</i> in the unit circle and use them as tools to evaluate the trigonometric functions at special angles and evaluate trigonometric functions
Algebra (A)	CS3.A.5 (Extension of S3.A.2)	Use the properties of exponents to rewrite expressions and simplify Create equations and inequalities in one variable to <i>model a context</i> and use them to solve problems. Include equations arising from polynomial, exponential, rational and radical functions. (MP 3)
Algebra (A)	CS3.A.8	<i>Model</i> arithmetic and geometric series, including infinite geometric series algebraically, graphically, and numerically. (MP 4)
Algebra (A)	CS3.A.9	<i>Build and use expressions</i> including sigma notation to represent the sum of a finite arithmetic or geometric series. (MP 4)

Number System (NS)	CS3.NS.1	<i>Represent</i> addition, subtraction, and multiplication geometrically on the complex plane. Perform algebraic operations with complex numbers on the complex plane. (MP 7)
Functions (F)	CS3.F.14	Define a curve parametrically, and <i>create a graphical model</i> . (MP 4)
Geometry/Trigonometry (G)	CS3.G.6	<i>Prove</i> the addition and subtraction formulas for sine, cosine and tangent and use them <i>as tools</i> to solve problems. (MP 5)
Algebra (A)	CS3.A.6 (Extension of S3.A.3)	For exponential models, express as a logarithm the solution to $f(t)=ab^{ct}=d$ where a , b , c , and d are numbers, $b>0$; evaluate the logarithm using <i>technological tools</i> . <i>Justify</i> and use the properties of logarithms to generate equivalent expressions, connecting them to the properties of exponents. (MP 2, 3)
Algebra (A)	CS3.A.7	Understand the inverse relationship between exponents and logarithms. Use this <i>relationship</i> to solve problems involving exponents and logarithms. (MP 7)
Algebra (A)	CS3.A.10	Add, subtract, multiply and divide polynomial and rational functions. <i>Justify</i> whether these operations result in new polynomial or rational functions. (MP 3)
Algebra (A)	CS3.A.11	Identify zeros of polynomial functions <i>using algebraic tools</i> , including factoring or the Remainder Theorem. (MP 5)
Algebra (A)	CS3.A.12	Expand and simplify polynomial sums, products, and powers using <i>structures and patterns</i> . (MP 7)
Algebra (A)	CS3.A.13	Solve compound inequalities in one variable, including absolute value inequalities <i>using algebraic or technological tools</i> . (MP 5)
Number System (NS)	CS3.NS.2	Using the Fundamental Theorem of Algebra, <i>construct arguments</i> that verify the solutions to polynomial equations will always be numbers within the set of complex numbers and will have the form $a+bi$ where a and b are real numbers. (MP 3)

Number System (NS)	CS3.NS.3	Find solutions for polynomials that are limited to integer coefficients <i>using algebraic or technological tools</i> . (MP 5) Understand and interpret the features of polynomial, radical, rational or logarithmic functions represented graphically using interval notation and inequalities by <i>applying and removing context</i> . Focus on these key features: domain, range, intervals of increase and/or decreasing, location of absolute maximum and/or absolute minimum, intercepts, asymptotes, and end behavior. <i>Build graphic models</i> that satisfy given key features. (MP 2, 4)
Functions (F)	CS3.F.9 (Extension of S3.F.1)	
Functions (F)	CS3.F.10 (Extension of S3.F.2)	<i>Build and use models</i> of periodic phenomena with trigonometric functions that connect real world contexts with amplitude, frequency, and midline. <i>Use structures and patterns</i> to support understanding of a domain extended beyond 0 to 90 degrees, or 0 to $\pi/2$ radians. (MP 4, 7)
Functions (F)	CS3.F.11 (Extension of S3.F.3)	Understand and interpret key features (period, midline and amplitude/asymptote) of trigonometric functions represented graphically. <i>Build</i> graphic models that satisfy the given key features. (MP 4)
Functions (F)	CS3.F.12 (Extension of S3.F.4)	<i>Build graphical representations</i> that show key features of polynomial, radical, exponential, logarithmic, rational and trigonometric functions expressed symbolically. <i>Select and use appropriate tools</i> to graph, by hand for simple cases, and use technology for more complicated cases. (MP 4, 5)

Functions (F)	CS3.F.13 (Extension of S3.F.5)	Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, $f(x+k)$ by exploring specific values of k for polynomial, radical, exponential, logarithmic, rational, and trigonometric functions in and out of context. <i>Attend to precision</i> of language and notation while <i>constructing arguments</i> and carefully evaluate whether the ideas and processes observed during exploration are <i>reasonable</i> . (MP 3, 6)
Functions (F)	CS3.F.15	<i>Build</i> a new function from a composition of functions that models a relationship between two quantities. (MP 4)
Functions (F)	CS3.F.16	<i>Verify</i> by composition that one function is the inverse of another function. <i>Build</i> an invertible function from a non-invertible function by restricting the domain. (MP 3, 4)
Functions (F)	CS3.F.17	Use inverse trigonometric functions to solve equations and inequalities <i>with and without a context</i> . Determine the <i>reasonableness</i> of solutions using <i>context</i> . (MP 2, 6)
Geometry/Trigonometry (G)	CS3.G.4	Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles <i>with and without context</i> . (MP 2)
Geometry/Trigonometry (G)	CS3.G.5	Use special triangles as tools to construct the unit circle with degrees and radians. <i>Describe and represent patterns</i> in the unit circle and use them as tools to evaluate the trigonometric functions at $\pi/4$, $\pi/3$, $\pi/2$, $2\pi/3$, $3\pi/4$, and π . (MP 5, 7)

Data Science (D)	DS3. D. 9	<i>Represent</i> categorical and quantitative information in organized tables suitable for analysis. <i>Attend to precision</i> in data processing by filtering through logical statements, and transforming data with a detailed set of ordered tasks that are repeatable by others or a computer. (MP 6, 7)
Data Science (D)	DS3. D. 10	Describe univariate displays of large sets of data using technology. <i>Ask targeted questions</i> about the displays, including shape (skewed, symmetric), center, variability, and unusual outcomes. (MP 1)
Data Science (D)	DS3. D. 11	<i>Describe and represent relationships</i> between two quantitative variables. Create visual representations with or without technology, addressing strength, form, direction and unusual observations in the data. (MP 7)
Data Science (D)	DS3. D. 12	<i>Build and use models</i> to describe relationships between two continuous variables using linear regression. Explain which variable(s) should be used for prediction. <i>Construct reasonable arguments</i> for appropriate and inappropriate use of the model for practical decision making. (MP 3, 4)
Data Science (D)	DS3. D. 13	<i>Describe the relationship</i> between the distribution of a population, the distribution of a sample, and a sampling distribution (e.g., the distribution of sample means). <i>Describe</i> sampling distributions through summary statistics, including the mean and the standard deviation. (MP 1)
Data Science (D)	DS3. D. 14	Use the central limit theorem to <i>represent</i> the distribution of sample means of large data sets as a normal distribution. <i>Assess conjectures</i> about the population means based on the sample averages through probability calculations from the normal distribution. (MP 7, 8)

Data Science (D)	DS3.D.15	<i>Use statistical tools</i> to validate the appropriateness and usefulness of a model, including visual and numeric assessments of model fit. Use hypothesis testing and simulation to <i>develop and assess</i> conjectures about the model. (MP 5, 8)
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Data Science (D)	DS3.D.16	<i>Evaluate results</i> reached from data analysis. Identify ways to refine investigative questions, data collection, visualization, or analysis. <i>Justify and communicate clear and reasonable</i> conclusions. (MP 3)
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Data Science (D)	DS3.D.17	Determine the appropriate scope of generalization based on the method of sampling. <i>Contextualize</i> the implications through data storytelling. (MP 2)
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Data Science (D)	DS3.D.18	Understand the role of random assignment in experiments and the implications for cause-and-effect interpretations. <i>Justify</i> conclusions. (MP 3)
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Data Science (D)	DS3.D.19	<i>Construct reasonable arguments</i> regarding the issues of data bias and confounding variables in observational studies and their implications for interpretation. (MP 3)
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Data Science (D)	DS3.D.20	<i>Use precision in practices</i> for handling large sets of data that enhance reproducibility and ensure ethical use, including descriptions of alterations, and understand when data may contain sensitive information. (MP 6)
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Measurability Score (0-2)		Measurability Issue Flag
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2—Measurable & well specified

2—Measurable & well specified

2—Measurable & well specified

2—Measurable & well specified

1—Partially measurable / well specified	Non-observable verb; Poorly specified
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0—Not measurable or poorly specified	Multiple expectations; Non- observable verb; Poorly specified
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1—Partially measurable / well specified	Non-observable verb
---	---------------------

2—Measurable & well
specified

1—Partially measurable / well specified	Multiple expectations; Poorly specified
---	---

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

1—Partially measurable / well specified	Poorly specified
---	------------------

2—Measurable & well
specified

1—Partially measurable / well specified	Poorly specified
---	------------------

1—Partially measurable / well specified	Poorly specified
---	------------------

2—Measurable & well
specified

1—Partially measurable / well specified	Multiple expectations; Non- observable verb
---	---

1—Partially measurable / well specified	Multiple expectations; Non- observable verb
---	---

2—Measurable & well
specified

1—Partially measurable / well specified	Multiple expectations; Non- observable verb
---	---

1—Partially measurable / well specified	Poorly specified
---	------------------

1—Partially measurable / well specified	Multiple expectations
---	--------------------------

2—Measurable & well
specified

2—Measurable & well
specified

1—Partially
measurable / well Non-observable verb
specified

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

1—Partially measurable / well specified	Non-observable verb
---	---------------------

0—Not measurable or poorly specified	Multiple expectations; Non- observable verb; Poorly specified
---	--

1—Partially measurable / well specified	Non-observable verb
---	---------------------

2—Measurable & well
specified

1—Partially measurable / well specified	Multiple expectations; Poorly specified
---	---

2—Measurable & well
specified

2—Measurable & well
specified

1—Partially measurable / well specified	Non-observable verb
---	---------------------

1—Partially measurable / well specified	Multiple expectations
---	--------------------------

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

1—Partially
measurable / well
specified

Multiple
expectations

2—Measurable & well
specified

2—Measurable & well
specified

1—Partially
measurable / well
specified

Non-observable verb

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

1—Partially
measurable / well Non-observable verb
specified

0—Not measurable or Multiple
poorly specified expectations; Non-
observable verb;
Poorly specified

1—Partially
measurable / well Non-observable verb
specified

2—Measurable & well
specified

1—Partially measurable / well specified	Multiple expectations; Poorly specified
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2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

1—Partially measurable / well specified	Non-observable verb
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1—Partially measurable / well specified	Multiple expectations
---	--------------------------

1—Partially measurable / well specified	Poorly specified
---	------------------

1—Partially measurable / well specified	Poorly specified
---	------------------

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

2—Measurable & well
specified

1—Partially
measurable / well
specified

Multiple
expectations

0—Not measurable or
poorly specified

Too broad; Too
vague

1—Partially
measurable / well
specified

Poorly specified;
Too broad

1—Partially
measurable / well
specified

Non-observable verb

1—Partially
measurable / well
specified

Too broad; Poorly
specified

0—Not measurable or poorly specified	Too vague; Too broad; Non- observable verb
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Measurability Notes

Instructional
Focus Tag

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

"Understand and interpret the features of ... functions ... **by applying and removing context**" is also poorly specified. It is not clear what this means in terms of observable behavior an assessor should be looking for.

This standard includes two distinct PEs that are unlikely to be assessable with a single performance. ("Build and use models of periodic phenomena..." and "Use structures and patterns to support...")

Because "model" is defined so broadly in MP4 (essentially used as a synonym for "representation"), it's not clear what type of model or models are expected.

Appropriate
supporting work

"Support understanding" is unobservable; it is not clear what specific behavior an educator or assessor would be looking for to determine proficiency.

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

Widely applicable
prerequisite

"Attend to precision of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are reasonable" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

Appropriate
supporting work

Widely applicable
prerequisite

Appropriate
supporting work

"Ask targeted questions" is poorly specified and high inference; assessors must use their own judgment to determine whether the questions students are asking are 'targeted' or not.

Appropriate
supporting work

Appropriate
supporting work

"Attend to precision and reasonableness while using volume formulas..." is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

"Attend to precision and reasonableness when summarizing categorical data in two-way frequency models" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

Appropriate
supporting work

"Understand" is a non-observable verb. If the goal is to be able to know/memorize and restate the formula, then use that language: "Know that the conditional probability is..." If the goal is to be able to use the formula to solve problems, then use that language: "Use the formula to find the conditional probability...." If it is conceptual understanding, use an observable verb to describe the behavior an assessor would look for. (For example, "Explain why the conditional probability of A given B...." "Construct an argument to justify why the conditional probability of A given B..." etc.)

The first two PEs are closely related and it makes sense to have them in the same standard. The third is a separate skill.

Appropriate
supporting work

"Recognize" is a non-observable verb, so it is not clear what observable behavior an educator or assessor would be looking for. Consider language such as "Identify data sets for which such a procedure is not appropriate."

Appropriate
supporting work

Appropriate
supporting work

"Understand" is a non-observable verb. Consider either removing it or using language like "Describe and apply best practices..." or "Explain and apply best practices..."

Widely applicable
prerequisite

"Attend to precision and reasonableness when summarizing and organizing collected data" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

This standard contains four distinct PEs:

- * Use statistical evidence from the analyses to evaluate results and answer questions.
- * Identify ways to refine investigative questions, data collection, visualization, or analysis.
- * Justify outcomes or estimates of population characteristics, considering their plausibility compared to chance variation, in a variety of formats (verbal, written, visual).
- * Communicate the interpretation of simulated p-values and determine statistical significance.

Appropriate
supporting work

The last two are closely related enough that they could both be evaluated by a single task, but the first two are distinctly different. A student could be proficient in the first, second, or third and fourth PEs without being proficient in the others, making this a difficult standard to assess with a single performance.

Widely applicable
prerequisite

Widely applicable
prerequisite

"Understand" is a non-observable verb. Consider removing the first sentence and rewriting the second to be something like "Use the inverse relationship between exponents and logarithms to solve problems involving exponents and logarithms. (MP 7)." It's the use of these relationships that is the observable behavior tied to the internal cognitive event of "understanding."

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

"Understand and interpret the features of ... functions ... by applying and removing context" is also poorly specified. It is not clear what this means in terms of observable behavior an assessor should be looking for.

This standard includes two distinct PEs that are unlikely to be assessable with a single performance. ("Build and use models of periodic phenomena..." and "Use structures and patterns to support...")

Because "model" is defined so broadly in MP4 (essentially used as a synonym for "representation"), it's not clear what type of model or models are expected.

Appropriate
supporting work

"Support understanding" is unobservable; it is not clear what specific behavior an educator or assessor would be looking for to determine proficiency.

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

Widely applicable
prerequisite

"Attend to precision of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are reasonable" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

Appropriate
supporting work

Widely applicable
prerequisite

"Understand" is a non-observable verb. Consider removing since applying the Law of Sines / Cosines seems to be the observable behavior that would indicate understanding. If not, consider what observable behavior would indicate understanding and change the language accordingly. (Explain, justify, etc.)

Appropriate
supporting work

The two PEs described here are both significant enough that they should be assessed via different tasks.

Appropriate
supporting work

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

This standard includes two distinct PEs (define a curve parametrically; create a graphical model).

Appropriate
supporting work

Appropriate
supporting work

Widely applicable
prerequisite

"Understand" is a non-observable verb. Consider removing the first sentence and rewriting the second to be something like "Use the inverse relationship between exponents and logarithms to solve problems involving exponents and logarithms. (MP 7)." It's the use of these relationships that is the observable behavior tied to the internal cognitive event of "understanding."

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

"Understand and interpret the features of ... functions ... by applying and removing context" is also poorly specified. It is not clear what this means in terms of observable behavior an assessor should be looking for.

This standard includes two distinct PEs that are unlikely to be assessable with a single performance. ("Build and use models of periodic phenomena..." and "Use structures and patterns to support...")

Because "model" is defined so broadly in MP4 (essentially used as a synonym for "representation"), it's not clear what type of model or models are expected.

Appropriate
supporting work

"Support understanding" is unobservable; it is not clear what specific behavior an educator or assessor would be looking for to determine proficiency.

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

Widely applicable
prerequisite

"Attend to precision of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are reasonable" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

Appropriate
supporting work

Widely applicable
prerequisite

Appropriate
supporting work

"Understand" is a non-observable verb. Consider removing since applying the Law of Sines / Cosines seems to be the observable behavior that would indicate understanding. If not, consider what observable behavior would indicate understanding and change the language accordingly. (Explain, justify, etc.)

Appropriate
supporting work

The two PEs described here are both significant enough that they should be assessed via different tasks.

Appropriate
supporting work

The clause "Attend to precision in data processing by filtering through logical statements..." is unclear, making it difficult to understand what the performance expectations are for this standard. The second sentence/PE is also poorly specified.

Appropriate
supporting work

"Ask targeted questions" is poorly specified and high inference; assessors must use their own judgment to determine whether the questions students are asking are 'targeted' or not.

Appropriate
supporting work

Appropriate
supporting work

Widely applicable
prerequisite

Widely applicable
prerequisite

Appropriate
supporting work

This standard includes two distinct PEs:

- * Use statistical tools to validate the appropriateness and usefulness of a model, including visual and numeric assessments of model fit.
- * Use hypothesis testing and simulation to develop and assess conjectures about the model.

The first one is an example of the second, which makes it challenging to assess whether a student has met the full standard. A way to address this issue could be to reword it as " Use hypothesis testing and simulation to develop and assess conjectures about the model; for example, using statistical tools to validate the appropriateness and usefulness of a model, including visual and numeric assessments of model fit."

Appropriate
supporting work

This standard is so broad that it's not clear what the performance expectation(s) would be. "Evaluate results reached from data analysis" could mean a wide range of things; "Identify ways to refine investigative questions" etc. leaves to the discretion of the assessor what those ways should be. Given the broadness and vagueness of the first two sentences, it is also unclear how the third sentence would be measured & assessed.

Appropriate
supporting work

This standard could refer to a wide range of statistical techniques and so would be difficult to assess with a single performance. 'Appropriate' is also poorly specified; since the standard is so broad, assessors will need to use their own judgment regarding whether the scope of generalization is appropriate or not.

Appropriate
supporting work

"Understanding the role of random assignment...and implications" isn't something that can be measured.

Appropriate
supporting work

Especially because data science standards are less common and less familiar to many educators, the lack of specificity in this standard may make it difficult for materials designers, teachers, and assessors to understand specifically what is being asked of students. Which issues of data bias? What implications?

Appropriate
supporting work

"Use precision in practices for handling large sets of data that enhance reproducibility and ensure ethical use" is broad and vague. It is not clear what practices are intended, so unclear how this PE would be assessed.

Appropriate
supporting work

"Understand when data may contain sensitive information" is both non-observable, and also vague; the standard doesn't specify what sensitive information is or how students would determine this.

Instructional Focus		Clarity
Instructional Focus Notes	Clarity & Accessibility Score (0-2)	Clarity & Accessibility Issue Flag

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

1—Partially clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE
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1—Partially
clear and
accessible

Vague/ambiguous language

2—Clear and
accessible

2—Clear and
accessible

1—Partially
clear and
accessible

Insufficient guidance to
understand PE

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Unclear grammar/typo(s)
--	-------------------------

1—Partially clear and accessible	Vague/ambiguous language
--	--------------------------

1—Partially clear and accessible	Unclear grammar/typo(s)
--	-------------------------

1—Partially clear and accessible	Insufficient guidance to understand PE
--	---

1—Partially clear and accessible	Unclear grammar/typo(s)
--	-------------------------

2—Clear and accessible	
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1—Partially clear and accessible	Unclear grammar/typo(s)
--	-------------------------

2—Clear and accessible	
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2—Clear and accessible	
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1—Partially clear and accessible	Insufficient guidance to understand PE
--	---

1—Partially clear and accessible	Other; Unclear grammar/typo(s); Mathematical error/imprecise usage of mathematical term(s)
--	--

2—Clear and
accessible

1—Partially clear and accessible	Unclear grammar/typo(s)
--	-------------------------

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Vague/ambiguous language
--	--------------------------

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE
--	---

1—Partially clear and accessible	Vague/ambiguous language
--	--------------------------

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Insufficient guidance to understand PE
--	---

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Unclear grammar/typo(s)
--	-------------------------

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Vague/ambiguous language
--	--------------------------

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

1—Partially
clear and
accessible

Vague/ambiguous
language; Insufficient
guidance to understand
PE

1—Partially
clear and
accessible

Vague/ambiguous language

2—Clear and
accessible

2—Clear and
accessible

1—Partially
clear and
accessible

Insufficient guidance to
understand PE

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Insufficient guidance to understand PE; Other
--	--

1—Partially clear and accessible	Vague/ambiguous language
--	--------------------------

2—Clear and
accessible

1—Partially clear and accessible	Unclear grammar/typo(s)
--	-------------------------

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Other
--	-------

0—Not clear and accessible	Insufficient guidance to understand PE
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1—Partially clear and accessible	Jargon; Vague/ambiguous language; Insufficient guidance to understand PE
--	---

2—Clear and
accessible

1—Partially clear and accessible	Insufficient guidance to understand PE
--	---

0—Not clear and
accessible

Vague/ambiguous
language; Insufficient
guidance to understand
PE

ty & Accessibility	
Clarity & Accessibility Notes	DOK Level (1-4)

2

2

2

2

"Understand and interpret the features of ... functions ... by applying and removing context" is unclear in terms of what it means, specifically, in terms of a PE for this standard.	3
---	---

Related to the note about poor specificity under the
measurability criteria, it is unclear what kind of
model or models are expected to meet the PE. 2

3

2

The mathematical meaning of the second sentence is
unclear and difficult to parse; though the meaning of
"attend to precision" is discussed in more detail in
the MP descriptions, it's not 100% clear what this
means in terms of performance expectations for this
standard. Similarly, the mathematical meaning of the
clause "carefully evaluate whether the ideas and
processes observed during exploration are reasonable"
is also unclear. 3

2

2

Current grammar is unclear; consider "Justify **the fact** that a quantity increasing exponentially..." 2

"Targeted" is high inference, requiring the educator or assessor to use their own judgment about what it means and whether a student has met the standard. 3

The phrase "concepts of density" (which also appears in other benchmark standards including the CCSS) may be confusing or unclear for some readers. 2

The clause "Attend to precision and reasonableness while using volume formulas " is unclear; it's not 100% clear what this means in terms of performance expectations. When we consider the original CCSS wording of this standard ("Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems"), the addition of "Attend to precision and reasonableness while [using]..." at the beginning feels forced, shifting a clear and measurable standard to one that is vague, unclear, not clearly measurable, and lacking sufficient guidance regarding what the performance expectation is for students. 2

There is something unclear and difficult to parse about the sentence "Describe and represent structures and patterns of data on two categorical variables." It is clear what it would mean to "Describe and represent patterns of data," but it's less clear what it would mean to "Describe and represent structures on two categorical variables." (Or is it, "Describe and represent structures of data on two categorical variables"? Which is equally unclear." 3

2

The clause "Use multiple representations as tools to describe and represent structure to build understanding of the addition rule" (particularly the two infinitive phrases back to back) is ungainly and difficult for the reader to parse. 3

2

3

"Understand and apply best practices for designing sample surveys, experiments, and observational studies" needs additional guidance regarding what the best practices are in order for educators and assessors to be able to determine whether a student has reached proficiency. 3

"Attend to precision and reasonableness when summarizing and organizing collected data to answer an investigative question using tables, graphs, and numerical summary statistics" is ungainly and difficult for the reader to parse.

Looking at the second sentence, the original wording from CCSS is: "Use data from a sample survey to estimate a population mean or proportion." The revised language ("Use models from sample data") is mathematically imprecise; one can use sample data to **create a model** which can then be used to estimate a population mean, but the current wording skips over this step, implying that the sample data *is itself the model*, which is inaccurate.

3

3

"Model a context" is not technically incorrect, but may cause more confusion than language like, for example, "model a situation" or "model a contextual situation." 'Situation' suggests a bounded, self-contained scenario, whereas 'context' suggests the surrounding frame & background that gives meaning to something else (context of a remark, context for a decision); the defining job of 'context' is to be peripheral. For this reason, the phrase "model a context" may come across as taking the background information (context) and promoting it to the object of study (the situation being modeled).

2

3

2

3

2

The word "simplify" in mathematics is ambiguous and should be avoided in benchmark/standard documents because "simpler" does not have a rigorous mathematical definition. In many cases what constitutes a "simpler" form of an expression is ambiguous, and many so-called "simplest forms" are just conventions rather than mathematical necessities. For example, both $x^2 + 5x + 6$ and $(x + 2)(x + 3)$ could be seen as "simpler" depending on the goal. Likewise, there is not widespread agreement among mathematicians about whether (for example) $x/2$ simpler than $\frac{1}{2}x$ or $0.5x$, or whether a^{-1} is simpler than $1/a$, whether $(x + 1)/2$ simpler than $x/2 + \frac{1}{2}$, etc. If this standard is referring to writing polynomial sums, products, and powers in forms without parentheses or other grouping symbols, it should state that clearly. (That said, we wouldn't recommend this, as a form with no grouping symbols is not always the form that is easiest to work with in a given situation.)

2

2

2

2

"Understand and interpret the features of ... functions
... by applying and removing context" is unclear in
terms of what it means, specifically, in terms of a PE
for this standard. 3

Related to the note about poor specificity under the
measurability criteria, it is unclear what kind of
model or models are expected to meet the PE. 2

3

2

The mathematical meaning of the second sentence is unclear and difficult to parse; though the meaning of "attend to precision" is discussed in more detail in the MP descriptions, it's not 100% clear what this means in terms of performance expectations for this standard. Similarly, the mathematical meaning of the clause "carefully evaluate whether the ideas and processes observed during exploration are reasonable" is also unclear.

3

2

2

2

2

See notes about the phrase "model a context" for CS3.A.5.

2

2

2

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2

3

3

2

3

2

See notes about the word "simplify" in mathematics for
CS3.A.12.

2

2

2

2

"Understand and interpret the features of ... functions
... by applying and removing context" is unclear in
terms of what it means, specifically, in terms of a PE
for this standard. 3

Related to the note about poor specificity under the
measurability criteria, it is unclear what kind of
model or models are expected to meet the PE. 2

3

2

The mathematical meaning of the second sentence is unclear and difficult to parse; though the meaning of "attend to precision" is discussed in more detail in the MP descriptions, it's not 100% clear what this means in terms of performance expectations for this standard. Similarly, the mathematical meaning of the clause "carefully evaluate whether the ideas and processes observed during exploration are reasonable" is also unclear.

3

2

2

3

2

2

See note under measurability -- the issues with the standard impact both measurability and clarity in similar ways. The clause "Attend to precision in data processing by filtering through logical statements..." may be confusing or unclear for some readers; though the meaning of "attend to precision" is discussed in more detail in the MP descriptions, it is not completely clear what this means in terms of performance expectations for this standard.

2

The second sentence/PE is also ungainly and difficult for the reader to parse.

"Targeted" is high inference, requiring the educator or assessor to use their own judgment about what it means and whether a student has met the standard.

2

2

There is something unclear about the construction of of the third sentence: "Construct reasonable arguments for appropriate and inappropriate use of the model for practical decision making. (MP 3, 4)." What would it mean to construct a reasonable argument for the inappropriate use of the model?

3

3

2

The clarity issue here is related to the measurability
issue described under that criteria. 3

Similar to the issue described under measurability, it
is difficult to understand what the PEs for this
standard actually are. 3

The sentence "Contextualize the implications through
data storytelling. (MP 2)" is unclear. An assessor does
not have enough information about the performance
expectation to determine whether a student is meeting
the standard. 3

2

See the note under measurability -- the issues with the
standard impact both measurability and clarity in
similar ways. 3

See note under measurability -- the issues with the standard impact both measurability and clarity in similar ways. It is currently not clear what practices are being referred to, or what it means to "understand when data may contain sensitive information." Though the meaning of "attend to precision" is discussed in more detail in the MP descriptions, it is not completely clear what this means in terms of performance expectations for this standard.

3

DOK	Mathematical Rigor	
DOK Notes	Mathematical Rigor Tag(s)	Mathematical Rigor Notes

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual Understanding;
Procedural Skill / Fluency

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Procedural Skill / Fluency;
Applications

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Procedural Skill / Fluency

Procedural Skill / Fluency

Conceptual Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

The intent of this standard seems to be at the DOK 3 level, but there are ways of meeting it that could be limited to DOK 2.

Conceptual Understanding

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.

Applications

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Applications

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Procedural Skill / Fluency

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.

Conceptual Understanding; Applications

Conceptual Understanding; Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

Depending on what the
observable performance
expectation is for
"recognize," this could
potentially be DOK 3. As
written we can only say for
sure that it is at least DOK
2.

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could
potentially be DOK 4
depending on the specifics,
but as written, can only
guarantee DOK 3.

Conceptual
Understanding;
Applications

The type of task could
potentially be DOK 4
depending on the specifics,
but as written, can only
guarantee DOK 3.

Conceptual
Understanding;
Applications

Giving the benefit of the doubt with this standards because it is poorly specified, making it difficult to assess DOK level with confidence.	Procedural Skill / Fluency; Conceptual Understanding; Applications
--	--

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.	Conceptual Understanding; Applications
---	--

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.	Procedural Skill / Fluency; Applications
---	--

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency;
Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency

Procedural Skill /
Fluency

Procedural Skill /
Fluency

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency

Conceptual
Understanding

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Applications

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Procedural Skill /
Fluency

Procedural Skill /
Fluency

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Procedural Skill /
Fluency;
Applications

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Procedural Skill /
Fluency

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Procedural Skill /
Fluency

Procedural Skill /
Fluency

Procedural Skill /
Fluency

Procedural Skill /
Fluency;
Conceptual
Understanding;
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Procedural Skill /
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Procedural Skill /
Fluency;
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Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency

Procedural Skill /
Fluency

Procedural Skill /
Fluency

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency

Conceptual
Understanding

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Applications

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Procedural Skill /
Fluency

Procedural Skill /
Fluency

Procedural Skill /
Fluency;
Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Procedural Skill /
Fluency;
Conceptual
Understanding

Because of the specificity and clarity issues in this standard, it is difficult to know for sure what level of DOK is represented. The minimum DOK level is likely 2.

Applications

Conceptual
Understanding;
Applications

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Applications

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could
potentially be DOK 4
depending on the specifics,
but as written, can only
guarantee DOK 3.

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Applications

Conceptual
Understanding

Conceptual
Understanding;
Applications

The type of task could
potentially be DOK 4
depending on the specifics,
but as written, can only
guarantee DOK 3.

Applications

Developmental Appropriateness		
Developmental Appropriateness Score (0-2)	Developmental Appropriateness Flag	Developmental Appropriateness Notes

2—Developmentally appropriate

2—Developmentally appropriate

2—Developmentally appropriate

2—Developmentally appropriate

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Integration of Appropriate Mathematical Practices		
Math Practice Integration	Math Practice Appropriateness	Identify Better Aligned MP Connection (if any and if misaligned)

2—All named practices integrated

2—All named practices appropriate

0—No practices integrated

2—All named practices appropriate

MP4; MP7

0—No practices integrated

2—All named practices appropriate

MP4; MP5

2—All named practices integrated

2—All named practices appropriate

2—All named practices integrated

2—All named practices appropriate

MP3; MP7

2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP3; MP7
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2—All named practices integrated	2—All named practices appropriate	MP7
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1—Any named practices integrated	2—All named practices appropriate	MP7
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	0—No practices appropriate	MP7; MP4
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2—All named practices integrated	2—All named practices appropriate	MP5
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2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

0—No practices integrated	2—All named practices appropriate	MP3
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2—All named practices integrated	2—All named practices appropriate	MP6; MP7
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2—All named practices integrated	2—All named practices appropriate	
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2—All named practices integrated	2—All named practices appropriate	
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	2—All named practices appropriate	MP4; MP8
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1—Any named practices integrated	1—Any named practices appropriate	MP7; MP5
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2—All named practices integrated	2—All named practices appropriate	
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2—All named practices integrated	2—All named practices appropriate	MP7
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2—All named practices integrated	2—All named practices appropriate	
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2—All named practices integrated	2—All named practices appropriate	
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2—All named practices integrated	2—All named practices appropriate	MP3; MP7
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2—All named practices integrated	2—All named practices appropriate	MP7
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP3; MP7
-------------------------------------	--------------------------------------	----------

2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

2—All named practices integrated	2—All named practices appropriate	MP3; MP7
-------------------------------------	--------------------------------------	----------

2—All named practices integrated	2—All named practices appropriate	MP7
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1—Any named practices integrated	2—All named practices appropriate	MP7
-------------------------------------	--------------------------------------	-----

2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

0—No practices integrated	0—No practices appropriate	MP3; MP7
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2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

2—All named practices integrated	2—All named practices appropriate	MP3
-------------------------------------	--------------------------------------	-----

0—No practices integrated	2—All named practices appropriate	MP4; MP8
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	MP3
1—Any named practices integrated	1—Any named practices appropriate	MP7; MP5
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	MP7
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	MP3; MP7
2—All named practices integrated	2—All named practices appropriate	MP7

2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP3; MP7
-------------------------------------	--------------------------------------	----------

2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP3; MP7
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2—All named practices integrated	2—All named practices appropriate	MP7
-------------------------------------	--------------------------------------	-----

1—Any named practices integrated	2—All named practices appropriate	MP7
-------------------------------------	--------------------------------------	-----

2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

0—No practices integrated	1—Any named practices appropriate	MP7
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

2—All named practices integrated	2—All named practices appropriate	MP3
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0—No practices
integrated

0—No practices
appropriate

2—All named practices
integrated

2—All named
practices appropriate

MP5

2—All named practices
integrated

2—All named
practices appropriate

MP4

2—All named practices
integrated

2—All named
practices appropriate

2—All named practices
integrated

2—All named
practices appropriate

MP6

2—All named practices
integrated

2—All named
practices appropriate

2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

0—No practices integrated	0—No practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

0—No practices
integrated

0—No practices
appropriate

Mathematical Practice Integration Notes	Notes	Memo
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	Included in memo counts.	Memo
Looks like this was a typo and that MP 4 is the practice that was intended.	Included in memo counts.	Memo
While MP 2 could be appropriate for this standard, its language does not suggest that that practice is the focus; MP 4 and 5 are the more obvious choices.	Included in memo counts.	Memo
	Included in memo counts.	Memo
	Included in memo counts.	Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

MP 3 is a reasonable match for this standard, but the language in the second sentence of standard is unclear and difficult to parse, making it difficult to tell if MP 6 is meaningfully integrated into the standard. Aspects of MP 6 *could* be aligned to this content if the standard were rewritten to address this issue.

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

It is difficult to say whether MP 2 is appropriately integrated into the standard, because as noted earlier, "Contextualize the implications through data storytelling" is an unclear PE.

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

MP 7 can align well with this content, but the clarity and measurability issues with the current wording make it difficult to tell whether MP 7 is currently meaningfully integrated with the content.

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Looks like this was a typo and Standard is listed twice in the standards
that MP 4 is the practice that PDF sheet. This instance is included in the Memo
was intended. memo counts.

While MP 2 could be appropriate for this standard, its language does not suggest that that practice is the focus; looks like this was a typo and that MP 5 is the practice that was intended.

Standard is listed twice in the standards PDF sheet. This instance is included in the memo counts.

Memo

Standard is listed twice in the standards PDF sheet. This instance is included in the memo counts.

Memo

Standard is listed twice in the standards PDF sheet. This instance is included in the memo counts.

Memo

Standard is listed twice in the standards PDF sheet. This instance is included in the memo counts.

Memo

Standard is listed twice in the standards PDF sheet. This instance is included in the memo counts.

Memo

Standard is listed twice in the standards PDF sheet. This instance seems to have a typo in the PDF (extra S).

Standard is listed twice in the standards
PDF sheet. This instance is included in the Memo
memo counts.

Standard is listed twice in the standards
PDF sheet. This instance is included in the Memo
memo counts.

Standard is listed twice in the standards
PDF sheet. This instance is included in the Memo
memo counts.

Standard is listed twice in the standards
PDF sheet. This instance is included in the Memo
memo counts.

Standard is listed twice in the standards
PDF sheet. This instance is included in the Memo
memo counts.

Standard is listed twice in the standards
PDF sheet. This instance is included in the Memo
memo counts.

MP 3 is a reasonable match for this standard, but the language in the second sentence of standard is unclear and difficult to parse, making it difficult to tell if MP 6 is meaningfully integrated into the standard. Aspects of MP 6 *could* be aligned to this content if the standard were rewritten to address this issue.

Standard is listed twice in the standards PDF sheet. This instance is included in the memo counts.

Memo

Code CS3.F.15 is also used to code this standard text.

Code CS3.F.16 is listed twice in the standards PDF and contains different standard text for each instance.

Modeling is not addressed in the language or content of this standard.

Code CS3.F.16 is also used to code this same standard text. This instance does not include MP3, but the other instance does.

Code CS3.F.17 is listed twice in the standards PDF and contains different standards text in each instance.

Standard is listed twice in the standards PDF sheet. This instance is included in the memo counts.

Memo

Standard is listed twice in the standards PDF sheet. This instance is included in the memo counts.

Memo

Looks like this was a typo and that MP 4 is the practice that was intended.

Standard is listed twice in the standards PDF sheet.

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

While MP 2 could be appropriate for this standard, its language does not suggest that that practice is the focus; looks like this was a typo and that MP 5 is the practice that was intended.

Standard is listed twice in the standards PDF sheet.

Standard is listed twice in the standards PDF sheet.

Standard is listed twice in the standards PDF sheet.

Standard is listed twice in the standards PDF sheet.

Standard is listed twice in the standards PDF sheet.

Standard is listed twice in the standards PDF sheet. This instance is included in the memo counts. Memo

Standard is listed twice in the standards PDF sheet.

Standard is listed twice in the standards
PDF sheet.

Standard is listed twice in the standards
PDF sheet.

Standard is listed twice in the standards
PDF sheet.

Standard is listed twice in the standards
PDF sheet.

Standard is listed twice in the standards
PDF sheet.

MP 3 is a reasonable match for this standard, but the language in the second sentence of standard is unclear and difficult to parse, making it difficult to tell if MP 6 is meaningfully integrated into the standard. Aspects of MP 6 *could* be aligned to this content if the standard were rewritten to address this issue.

Standard is listed twice in the standards PDF sheet.

Code CS3.F.16 is also used to code this standard text.

This instance is included in the memo counts.

Memo

Code CS3.F.17 is also used to code this same standard text. This instance includes MP3 (which is appropriate), but the other instance does not include this code.

MP 3 is appropriate. Modeling is not addressed in the language or content of this standard.

Code CS3.F.16 is listed twice in the standards PDF and contains different standard text for each instance.

This instance is included in the memo counts.

Memo

Code CS3.F.17 is listed twice in the standards PDF and contains different standards text in each instance.

This instance is included in the memo counts.

Memo

Standard is listed twice in the standards PDF sheet.

Standard is listed twice in the standards PDF sheet.

Language in the standard does
not reflect MP7.

Because of the clarity issues
with the second sentence, it is
not possible to determine
whether MP 6 is meaningfully
integrated or in alignment with
the content.

Included in memo counts.

Memo

The phrase "using technology"
clearly connects this standard
to MP5.

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.	Memo
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Included in memo counts.	Memo
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It is difficult to say whether MP 2 is appropriately integrated into the standard, because as noted earlier, "Contextualize the implications through data storytelling" is an unclear PE. For that reason, it is also difficult to determine what MP, if any, would be a better match.

Included in memo counts.	Memo
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Included in memo counts.	Memo
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Included in memo counts.	Memo
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It is possible that MP6 could be
a good match for this content,
but the clarity and
measurability issues with the
current wording make it
difficult to tell for sure
whether it is currently
meaningfully integrated

Included in memo counts.

Memo

Part/Pathway

Math for All

Math for All

Math for All

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Domain	Standard ID (int)	Standard ID (AGA)	AGA Course
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Algebra (A)	S1. A. 1	A1. SSE. 1	A1
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Algebra (A)	S2. A. 1	A1. SSE. 2	A1
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Algebra (A)	S1. A. 2	A1. CE. 1	A1
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Algebra (A)	S2. A. 3	A1. CE. 2	A1
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Algebra (A)	S1. A. 3	A1. CE. 3	A1
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Algebra (A)	S1. A. 6	A1. CE. 4	A1
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Algebra (A)	S2. A. 2	A1. CE. 5	A1
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Algebra (A)	S1. A. 4	A1. REI. 1	A1
Algebra (A)	S1. A. 5	A1. REI. 2	A1
Algebra (A)	S1. A. 7	A1. REI. 3	A1
Algebra (A)	S1. A. 8	A1. REI. 4	A1
Algebra (A)	S2. A. 4	A1. REI. 5	A1
Algebra (A)	S2. A. 5	A1. REI. 6	A1
Number System (NS)	S2. NS. 1	A1. NS. 1	A1

Number System (NS)	S2. NS. 2	A1. NS. 2	A1
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Number System (NS)	S2. NS. 3	A1. NS. 3	A1
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Number System (NS)	S2. NS. 4	A1. NS. 4	A1
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Functions (F)	S1. F. 1	A1. IF. 1	A1
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Functions (F)	S1. F. 2	A1. IF. 2	A1
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Functions (F)	S1. F. 3	A1. IF. 3	A1
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Functions (F)	S1. F. 4	A1. IF. 4	A1
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Functions (F)	S1.F.5	A1. IF.5	A1
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Functions (F)	S2.F.5	A1. IF.6	A1
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Functions (F)	S2.F.2	A1. IF.7	A1
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Functions (F)	S2.F.3	A1. IF.8	A1
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Functions (F)	S2.F.4	A1.IF.9	A1
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Functions (F)	S1.F.8	A1.BF.1	A1
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Functions (F)	S2.F.6	A1.BF.2	A1
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Functions (F)	S1.F.9	A1.BF.3	A1
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Functions (F)	S1.F.10	A1.BF.4	A1
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Functions (F)	S2.F.7	A1.BF.5	A1
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Functions (F)	S1.F.11	A1.BF.6	A1
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Functions (F)	S2.F.8	A1.BF.7	A1
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Extended Topics

Matrices (M)	S1.M.1	A1.M.1	A1
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Matrices (M)	S1.M.2	A1.M.2	A1
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Matrices (M)	S1.M.3	A1.M.3	A1
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Matrices (M)	S1.M.4	A1.M.4	A1
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Matrices (M)	S1. M. 5	A1. M. 5	A1
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Matrices (M)	S1. M. 6	A1. M. 6	A1
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Matrices (M)	S1. M. 7	A1. M. 7	A1
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Matrices (M)	S1. M. 8	A1. M. 8	A1
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Standard Text	Measurability Score (0-2)	Measurability Issue Flag
<i>Use the structure</i> of linear expressions and exponential expressions with integer exponents to identify parts of the expression and interpret their meaning in context. Interpret complicated expressions (such as $P(1+r)^n$) by viewing one or more of their parts as a single entity. (MP 7) <i>Use the structure</i> of quadratic and exponential expressions by identifying parts of the expression and interpret in context (ie. Use vertex form of a quadratic to identify the maximum height of an object flying through the air). Use <i>algebraic tools</i> to produce equivalent forms that reveal different properties. (MP 2, 5, 7)	2—Measurable & well specified	
<i>Build symbolic models</i> of linear equations and inequalities, and use them to solve problems <i>in and out of context</i>. (MP 3, 4)	2—Measurable & well specified	
<i>Build symbolic models</i> of linear and quadratic equations and inequalities, and use them to solve problems in and out of context. (MP 3, 4)	2—Measurable & well specified	
Use algebraic properties of equality <i>as tools</i> to rearrange formulas to isolate a quantity of interest. (MP 5)	2—Measurable & well specified	
Interpret whether a solution of a system of linear equations and inequalities is viable or non-viable <i>using graphic and analytic models</i>. Use <i>models</i> of systems of linear equations and inequalities to interpret whether a solution is viable or non-viable. (MP 4)	2—Measurable & well specified	
Use addition, subtraction and multiplication to <i>build</i> new linear and quadratic functions. (MP 4)	2—Measurable & well specified	

Solve linear equations and inequalities *using algebraic tools*, starting from the assumption that a solution exists. Communicate clear arguments for equations that do not have one unique solution and justify the results. Interpret solutions and use both inequality and interval notation. (MP 3, 5)

2—Measurable & well specified

Solve systems of linear equations *using algebraic tools*. Understand and *justify* how equations are manipulated while maintaining the consistency of the system. (MP 3, 5)

2—Measurable & well specified

Build and use graphic models to analyze and solve systems of two linear equations as well as systems of one linear equation and one exponential equation in two variables and interpret their solutions. (MP 4)

2—Measurable & well specified

Build and use graphic models to show the solutions to a linear inequality in two variables as a half-plane, and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes. (MP 4)

2—Measurable & well specified

Select and use algebraic and technologic tools to strategically solve quadratic equations and inequalities in one variable. Algebraic tools include taking square roots, completing the square, the quadratic formula, and factoring. (MP 5)

2—Measurable & well specified

Select and use algebraic and technologic tools to strategically solve a system of equations consisting of a linear equation and a quadratic equation in two variables. Algebraic tools, including factoring and the quadratic formula, should be used in simpler cases, and technologic tools in more complicated cases. (MP 5)

2—Measurable & well specified

Extend *understanding of the structure* of integer exponent properties to rational exponents. (MP 8)

0—Not measurable or poorly specified

Non-observable verb; Poorly specified

Use the properties of exponents <i>as tools to</i> rewrite expressions involving radicals and rational exponents in equivalent forms. (MP 5)	2—Measurable & well specified	
Use the Fundamental Theorem of Algebra to <i>construct arguments</i> that verify that the solutions to any quadratic equation will always be numbers within the set of complex numbers and will have the form $a + bi$ where a and b are real numbers. (MP 3)	2—Measurable & well specified	
<i>Build and use models</i> to solve quadratic equations with real coefficients that have complex solutions, rewriting $x^2 + 4$ as $(x + 2i)(x - 2i)$. (MP 4)	2—Measurable & well specified	
<i>Construct and communicate clear arguments</i> to justify whether a relation is a function. (MP 3)	2—Measurable & well specified	
<i>Understand the structure</i> of function notation, if f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x . The graph of f is the graph of the equation $y = f(x)$. (MP 7)	1—Partially measurable / well specified	Non-observable verb
Evaluate functions for inputs in their domains and interpret statements that use function notation <i>in terms of a context</i> . (MP 2)	2—Measurable & well specified	
<i>Build and use</i> explicit and recursive equations to model arithmetic and geometric sequences using function notation. <i>Describe and represent</i> the domain of these models as a subset of the integers. (MP 4, 7)	2—Measurable & well specified	

Understand and interpret the features of a function represented graphically, numerically and symbolically using interval notation and inequalities *by applying and removing context*.

Focus on these key features: domain, range, intervals of increase and/or decreasing, location of absolute maximum and/or absolute minimum, and intercepts. *Build graphic models* that satisfy given key features. (MP 2, 4)

1—Partially measurable / Non-observable verb well specified

Select and use algebraic tools to create different but equivalent forms of functions that highlight different properties of the function. *Contextualize and decontextualize* these functions to interpret these properties. (MP 2, 5)

1—Partially measurable / Multiple expectations; Poorly specified well specified

Determine the average rate of change of a function over a closed interval while attending to precision and reasonableness. Connect the average rate of change with *context* appropriately. (MP 2, 6)

2—Measurable & well specified

Build graphic representations that show key features of quadratic, linear, exponential, absolute value and piecewise functions expressed symbolically. *Select and use appropriate tools to* model with and without technology. (MP 4, 5)

1—Partially measurable / Too vague well specified

Compare and contrast the properties of quadratic, linear, exponential, absolute value and piecewise functions (represented in different ways), including zeros, extreme values, symmetry and percent rate, when appropriate. <i>Formulate and ask questions</i> to highlight the similarities and differences between function types. (MP 1)	2—Measurable & well specified	
<i>Build</i> a function that models linear or exponential relationships. Appropriately use explicit and recursive rules to model these relationships and translate between the two forms. (MP 4)	1—Partially measurable / well specified	Multiple expectations
<i>Build</i> a function that <i>models</i> a quadratic relationship. Use <i>structures and patterns</i> to build an equation that models explicit reasoning, or a recursive process. <i>Attend to the precision</i> of notation and labeling while building and using these models. (MP 4, 6, 7)	1—Partially measurable / well specified	Too vague
<i>Construct arguments</i> that <i>use the structures and patterns</i> of relationships to connect arithmetic sequences to linear functions and geometric sequences to exponential functions. (MP 3, 7)	2—Measurable & well specified	
<i>Use structures and patterns</i> to identify the effect of k on the graph when replacing $f(x)$ by $f(x) + k$. Explore specific values of k for linear and exponential functions in and out of context. (MP 7)	1—Partially measurable / well specified	Multiple expectations; Poorly specified; Non-observable verb
Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(x+k)$ by exploring specific values of k for quadratic and absolute value functions in and out of context. <i>Attend to precision</i> of language and notation while <i>constructing arguments</i> and carefully evaluate whether the ideas and processes observed during exploration are <i>reasonable</i> . (MP 3, 6)	1—Partially measurable / well specified	Too vague; Poorly specified
<i>Communicate clear and reasonable arguments</i> to distinguish between situations that can be modeled with linear functions, exponential functions, or neither. Connect the structure of linear and exponential functions with their parameters, ($y=mx+b$, $y=bx(a)$). Justify that a quantity increasing exponentially eventually exceeds a quantity increasing linearly. (MP 3, 7)	1—Partially measurable / well specified	Multiple expectations

<i>Communicate clear and reasonable arguments</i> to distinguish between situations that can be modeled with quadratic, exponential, and linear functions. Interpret the structure of quadratic functions written in different forms with the features of their graphs. (MP 3, 7)	1—Partially measurable / well specified	Multiple expectations
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Add, subtract, and multiply matrices of appropriate dimensions <i>using algebraic tools</i> for smaller matrices and technology for larger matrices. (MP 5)	2—Measurable & well specified
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Use matrices to represent and manipulate data (e.g., to represent payoffs or incidences relationships in a network). Multiply matrices by scalars to produce new matrices and <i>make sense</i> of this product by connecting it with and without a context. (MP 2, 4)	1—Partially measurable / well specified	Multiple expectations; Non-observable verb
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<i>Communicate</i> understanding that, unlike multiplication of numbers, matrix multiplication for square matrices is not a commutative operation, but still satisfies the associative and distributive properties. (MP 3)	2—Measurable & well specified
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Communicate understanding that the zero and identity matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers. The determinant of a square matrix is nonzero if and only if the matrix has a multiplicative inverse. (MP 3)	2—Measurable & well specified
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Use 2x2 matrices to *model* transformations of the plane, and *interpret* the absolute value of the determinant in terms of area. (MP 4, 7) 2—Measurable & well specified

Model a system of linear equations as a single-matrix equation in a vector variable. (MP 4) 2—Measurable & well specified

Solve systems of linear equations up to three variables using matrix row reduction and technology *as tools*. (MP 5) 2—Measurable & well specified

Find the inverse of a matrix if it exists *using technology or algebraic tools*, and use the inverse to solve systems of linear equations (using technology for matrices of dimensions 3x3 or greater). (MP 5) 2—Measurable & well specified

lity	Instructional Focus		
Measurability Notes	Instructional Focus Tag	Instructional Focus Notes	Clarity & Accessibility Score (0-2)

Widely applicable prerequisite

2—Clear and accessible

Widely applicable prerequisite

2—Clear and accessible

Widely applicable prerequisite

1—Partially clear and accessible

Widely applicable prerequisite

2—Clear and accessible

Widely applicable prerequisite

2—Clear and accessible

Widely applicable prerequisite

1—Partially clear and accessible

Widely applicable prerequisite

2—Clear and accessible

The multiple expectations in this standard are tightly related.	Widely applicable prerequisite	1—Partially clear and accessible
	Widely applicable prerequisite	2—Clear and accessible
	Widely applicable prerequisite	2—Clear and accessible
	Widely applicable prerequisite	2—Clear and accessible
	Widely applicable prerequisite	2—Clear and accessible
	Widely applicable prerequisite	2—Clear and accessible
"Understanding" is non-observable. Because "understanding of the structure of integer exponents" is poorly specified, it is not clear what the PE would be for extending that understanding to rational exponents.	Widely applicable prerequisite	1—Partially clear and accessible

Widely applicable
prerequisite

2—Clear and
accessible

Appropriate
supporting work

2—Clear and
accessible

Appropriate
supporting work

2—Clear and
accessible

Widely applicable
prerequisite

2—Clear and
accessible

Understand is a non-observable
verb; it is not clear what the
performance expectation is for
proficiency.

Widely applicable
prerequisite

2—Clear and
accessible

Widely applicable
prerequisite

2—Clear and
accessible

Widely applicable
prerequisite

2—Clear and
accessible

"Understand" is a non-observable verb; the standard also does not specify what a student should understand about the features of a function.	Widely applicable prerequisite	2—Clear and accessible
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Given the focus of this standard, the particular "algebraic tools" or techniques need to be specified. Otherwise the PE will not be clear to teachers, assessors etc	Widely applicable prerequisite	1—Partially clear and accessible
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Widely applicable prerequisite	2—Clear and accessible
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The measurability issues here are related to the clarity of the language.	Widely applicable prerequisite	0—Not clear and accessible
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	Widely applicable prerequisite	2—Clear and accessible
These are really distinct PEs that should be assessed separately	Widely applicable prerequisite	2—Clear and accessible
The relationship between the first two sentences is unclear. What does "models explicit reasoning" look like?	Widely applicable prerequisite	2—Clear and accessible
	Widely applicable prerequisite	2—Clear and accessible
Explore are non-observable verbs; the standard does not specify what structures and patterns should use to identify the effect of k on the graph, or how.	Widely applicable prerequisite	2—Clear and accessible
Measurability issues here are related to clarity. The second sentence is extremely wordy and vague; it is not at all clear what behaviors a teacher would be looking for to assess proficiency.	Widely applicable prerequisite	1—Partially clear and accessible
Specifying the relation of the 2nd and 3rd performances to the 1st would be helpful.	Widely applicable prerequisite	1—Partially clear and accessible

Specifying the relation of the 2nd and 3rd performances to the 1st would be helpful.	Widely applicable prerequisite	1—Partially clear and accessible
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	Appropriate supporting work	2—Clear and accessible
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"Make sense" is not observable; it is not clear what behavior teachers would be looking for to know that students had made sense of scalar products. (It is also not clear grammatically what is meant by "connecting it with and without a context," so not clear how this would be measured.)	Appropriate supporting work	1—Partially clear and accessible
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	Appropriate supporting work	2—Clear and accessible
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	Appropriate supporting work	2—Clear and accessible
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Appropriate
supporting work

2—Clear and
accessible

Appropriate
supporting work

2—Clear and
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supporting work

2—Clear and
accessible

Appropriate
supporting work

2—Clear and
accessible

Clarity & Accessibility		
Clarity & Accessibility Issue Flag	Clarity & Accessibility Notes	DOK Level (1-4)

		2
		2
Mathematical error/imprecise usage of mathematical term(s)	"Build symbolic models of linear equations and inequalities" is redundant; linear equations and inequalities ARE the symbolic models of situations involving linear relationships.	2
		2
		2
Unclear grammar/typo(s)	"Interpret whether a solution of a system of linear equations and inequalities is viable or non-viable" is not grammatically correct. We suspect the intent is something like "Determine whether a solution of a system of linear equations and inequalities is viable or non-viable" or "Interpret solutions of a system of linear equations and inequalities as viable or non-	2
		2

	"Communicate clear arguments for equations" does not make grammatical or mathematical sense, and is also redundant with	
Mathematical error/imprecise usage of mathematical term(s); Unclear grammar/typo(s)	"justify the results." We suspect the intent is something like "Identify linear equations and inequalities that do not have one unique solution and justify the claim. "	3
		3
		2
		2
		2
		2
Insufficient guidance to understand PE	Because the standard is poorly specified, the PE is not clear.	2

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Insufficient guidance to understand PE

Because the algebraic tools are not specified, the PEs are not clear.

2

2

Vague/ambiguous language; Insufficient guidance to understand PE

The first PE is unnecessarily wordy, making the meaning both ambiguous and unclear. What is the desired PE? Is it to build symbolic representations of different functions (e.g, equations)? Or is it to generate OTHER representations of functions that have been presented symbolically? "Select and use appropriate tools to move with and without technology" is also vague/ambiguous, making the PE unclear.

2

2

2

3

3

2

Vague/ambiguous
language; Insufficient
guidance to understand
PE

The second sentence is extremely
vague and difficult to parse; the
PE is not clear.

3

Vague/ambiguous
language; Unclear
grammar/typo(s)

"Communicate clear and reasonable
arguments to distinguish between
situations that can be modeled..."
is not grammatically correct. We
suspect the intent might be
something like "Distinguish
between situations that can be
modeled with linear functions,
exponential functions, or neither,
and justify the conclusion."

3

Vague/ambiguous
language; Unclear
grammar/typo(s)

"Communicate clear and reasonable arguments to distinguish between situations that can be modeled..." is not grammatically correct. We suspect the intent might be something like "Distinguish between situations that can be modeled with quadratic, exponential, or linear functions, and justify the conclusion."

3

2

Unclear grammar/typo(s)

The text "by connecting it with and without a context" is not linguistically clear or mathematically precise. "Connecting it with a context" makes sense; "connecting it without a context" does not.

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2

DOK	Mathematical Rigor	
DOK Notes	Mathematical Rigor Tag(s)	Mathematical Rigor Notes

interpret their meaning in context

Conceptual Understanding;
Procedural Skill / Fluency

interpreting requires decoding in context

Procedural Skill / Fluency;
Conceptual Understanding

Solving problems with equations and inequalities in and out of context

Conceptual Understanding;
Procedural Skill / Fluency

Some *could* be Application

Procedural Skill / Fluency;
Conceptual Understanding

Conceptual Understanding;
Procedural Skill / Fluency

A student could meet this standard without any connection to the real world.

Applications;
Conceptual Understanding

Second part could be application.

Procedural Skill / Fluency

"Justify" bumps it to 3 but
mostly 2.

Applications;
Conceptual
Understanding

"Justify" bumps it to 3 but
mostly 2.

Applications;
Conceptual
Understanding

routine

Applications;
Conceptual
Understanding;
Procedural Skill /
Fluency

routine

Applications;
Conceptual
Understanding;
Procedural Skill /
Fluency

Procedural Skill /
Fluency

Procedural Skill /
Fluency

Procedural Skill /
Fluency

Procedural Skill /
Fluency;
Conceptual
Understanding

Conceptual
Understanding

Conceptual
Understanding

Conceptual
Understanding;
Applications

Because this standard uses a
non-measurable verb
("understand"), it is not clear
what the PE actually is, so the
DOK level is difficult to
assess. We give the benefit of
the doubt that this is not a
purely procedural/recall
standard.

Conceptual
Understanding;
Procedural Skill /
Fluency

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Procedural Skill /
Fluency

Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency;
Conceptual
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Procedural Skill /
Fluency

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Procedural Skill /
Fluency;
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Conceptual
Understanding;
Procedural Skill /
Fluency

Conceptual
Understanding

Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding;
Applications



Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency;
Conceptual
Understanding

Because this standard uses a
non-measurable verb
("understand"), it is not clear
what the PE actually is, so the
DOK level is difficult to
assess. We give the benefit of
the doubt that this is not a
purely procedural/recall
standard.

Conceptual
Understanding

Because this standard uses a
non-measurable verb
("understand"), it is not clear
what the PE actually is, so the
DOK level is difficult to
assess. We give the benefit of
the doubt that this is not a
purely procedural/recall
standard.

Conceptual
Understanding

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency;
Conceptual
Understanding

Conceptual
Understanding

Developmental Appropriateness		
Developmental Appropriateness Score (0-2)	Developmental Appropriateness Flag	Developmental Appropriateness Notes

2—Developmentally appropriate

2—Developmentally appropriate

2—Developmentally appropriate

2—Developmentally appropriate

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2—Developmentally
appropriate

For all of these,
depending on when they
land in the course, this
is typically covered in
Alg2/Math 3 or Trig in
most states.

For all of these,
depending on when they
land in the course, this
is typically covered in
Alg2/Math 3 or Trig in
most states.

2—Developmentally
appropriate

2—Developmentally
appropriate

2—Developmentally
appropriate

2—Developmentally
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2—Developmentally
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For all of these,
depending on when they
land in the course, this
is typically covered in
Alg2/Math 3 or Trig in
most states.

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Alg2/Math 3 or Trig in
most states.

Integration of Appropriate Mathematics		
Math Practice Integration	Math Practice Appropriateness	Identify Better Aligned MP Connection (if any and if misaligned)
2—All named practices integrated	2—All named practices appropriate	
1—Any named practices integrated	1—Any named practices appropriate	
1—Any named practices integrated	2—All named practices appropriate	MP5
1—Any named practices integrated	1—Any named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	MP4
2—All named practices integrated	2—All named practices appropriate	MP5
0—No practices integrated	0—No practices appropriate	MP7

2—All named practices integrated	2—All named practices appropriate	MP4
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP5
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2—All named practices integrated	2—All named practices appropriate	MP5
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	0—No practices appropriate	MP7
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2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	MP7
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	
0—No practices integrated	2—All named practices appropriate	
1—Any named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	

1—Any named practices integrated	1—Any named practices appropriate	MP7
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2—All named practices integrated	2—All named practices appropriate
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1—Any named practices integrated	1—Any named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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1—Any named practices integrated	2—All named practices appropriate
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2—All named practices integrated 2—All named practices appropriate

2—All named practices integrated 2—All named practices appropriate

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2—All named practices integrated 2—All named practices appropriate

Mathematical Practice Integration Notes

MP2 not integrated; this standard does not ask students to make sense of mathematical content by adding or removing a context.

MP3 not integrated

MP3 not integrated; does not address justification or communicating an argument.

This seems more like the middle school level of MP 5.

Does not address modeling at all.

The reason MP7 is not fully integrated into this standard is because the lack of an observable verb means that there is not a clear & measurable PE.

The second part of the standard is close to what the end of the high school description for MP 2 says, but is not fully integrated.

"MP 2 – Specifically says "Students add or remove context to help make sense of mathematical concepts" so MP 2 is well integrated. Adding a context could help make sense of the features of a "naked" function, while removing a context could make it easier to focus on the features of a function represented as an equation, table, etc., so the practice could potentially be appropriate.

MP4 – The second PE ("Build graphic models that satisfy given key features") is not clear enough to tell whether MP 4 is meaningfully integrated (specifically, not clear what "satisfy" means in this context). MP 4 could be appropriate if the standard had an application focus.

When talking about the key features of a function, MP 7 is a natural connection. MP 3 could also be a good fit. "

MP2 is not integrated. The standard mentions contextual problems, but does not require students to make sense of mathematics by adding or removing a context.



It is not clear whether MP2 not integrated
because the text "by connecting it with and
without a context" is not linguistically clear
or mathematically precise.

The standard does not address MP3;
communicating understanding is not the same as
communicating an argument.

The standard does not address MP3;
communicating understanding is not the same as
communicating an argument.

Domain	Standard ID (int)	Standard ID (AGA)	AGA Course
Geometry (G)	S1.G.1	G.CO.1	G
Geometry (G)	S1.G.2	G.CO.2	G
Geometry (G)	S1.G.3	G.CO.3	G
Geometry (G)	S1.G.4	G.CO.4	G
Geometry (G)	S1.G.5	G.CO.5	G
Geometry (G)	S1.G.6	G.CO.6	G

Geometry (G)	S1. G. 7	G. C0. 7	G
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Geometry (G)	S2. G. 1	G. C0. 8	G
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Geometry (G)	S2. G. 1 (a)	G. C0. 8 (a)	G
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Geometry (G)	S2. G. 1 (b)	G. C0. 8 (b)	G
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Geometry (G)	S2. G. 1 (c)	G. C0. 8 (c)	G
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Geometry (G)	S2. G. 2	G. SRT. 1	G
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Geometry (G)	S2. G. 3	G. SRT. 2	G
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Geometry (G)	S2. G. 4	G. SRT. 3	G
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Geometry (G)	S2. G. 5	G. SRT. 4	G
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Geometry (G)	S2. G. 6	G. SRT. 5	G
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Geometry (G)	S2. G. 7	G. C. 1	G
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Geometry (G)	S2. G. 8	G. C. 2	G
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Geometry (G)	S2. G. 9	G. C. 3	G
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Geometry (G)	S2. G. 10	G. C. 4	G
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Geometry (G)	S2. G. 11	G. GMD. 1	G
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Geometry (G)	S3. G. 1	G. GMD. 2	G
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Geometry (G)	S3. G. 2	G. GMD. 3	G
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Geometry (G)	S3. G. 3	G. GMD. 4	G
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Data Science (D)	S1. D. 1	G. D. 1	G
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Data Science (D)	S1. D. 2	G. D. 2	G
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Data Science (D)	S1. D. 3	G. D. 3	G
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Data Science (D)	S1. D. 4	G. D. 4	G
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Data Science (D)	S1. D. 5	G. D. 5	G
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Data Science (D)	S1. D. 6	G. D. 6	G
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Data Science (D)	S2. D. 1	G. D. 7	G
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Data Science (D)	S2. D. 2	G. D. 8	G
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Data Science (D)	S2. D. 3	G. D. 9	G
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Data Science (D)	S2. D. 4	G. D. 10	G
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Extended Topics

Vectors	S2. V. 1	G. V. 1	G
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Vectors	S2. V. 2	G. V. 2	G
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Vectors	S2. V. 3	G. V. 3	G
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Vectors	S2. V. 4	G. V. 4	G
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Vectors	S2. V. 5	G. V. 5	G
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Geometry	S2. G. 12	G. CS. 1	G
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Geometry	S2. G. 13	G. CS. 2	G
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Standard Text	Measurability Score (0-2)	Measurability Issue Flag
<i>Describe and represent the underlying structure</i> of translations, rotations and reflections, in terms of angles, circles, perpendicular lines, parallel lines, and line segments. (MP 7)	2—Measurable & well specified	
<i>Construct and clearly communicate definitions</i> of the rigid transformations to show that these transformations are functions that take points in the plane as inputs and give corresponding points as outputs. (MP 3)	1—Partially measurable / well specified	Too vague
<i>Select and use tools to strategically perform</i> rigid transformations. <i>Attend to precision</i> when identifying and describing the transformation or the sequence of transformations to determine whether or not two figures are congruent. Understand that the image created from a rigid transformation or a sequence of rigid transformations is congruent to the pre-image. (MP 5, 6)	0—Not measurable / well specified	Too vague; Non-observable verb; Poorly specified
<i>Construct and communicate clear and reasonable arguments</i> about reflection and rotational symmetries of parallelograms and regular polygons. Use reflections and rotations to informally <i>justify</i> attributes of parallelograms including rhombus, rectangles and squares. (MP 3)	0—Not measurable / well specified	Too vague; Poorly specified
Precisely construct geometric objects including equilateral triangle, rhombus, square, parallel line, perpendicular bisector, and angle bisector. <i>Communicate clearly</i> about the use of geometric construction tools and analyze the underlying structure of geometric objects as revealed by the tools. (MP 3)	1—Partially measurable / well specified	Poorly specified
<i>Construct, justify and communicate clear arguments</i> that show how the criteria for triangle congruence (ASA, SAS, SSS) can be established using the definition of congruence in terms of rigid motions. (MP 3)	2—Measurable & well specified	

Justify whether or not a quadrilateral has the attributes of a square, rectangle, rhombus or parallelogram. Connect the Pythagorean Theorem to the distance formula and utilize slope along with distance as a means for *justification*. (MP 3)

2—Measurable & well specified

Construct, justify and communicate clear and reasonable arguments to prove geometric theorems. Support refinement of reasoning *by asking questions*. Develop flexibility in creating logical arguments and proofs of various formats, including: narrative paragraphs, flow diagrams, two-column format, and diagrams without words. (MP 1, 3) Proofs should focus on:

- a. theorems about lines and angles; vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.
- b. theorems about triangles; measures of interior angles of a triangle sum to 180° ; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point
- c. theorems about parallelograms; opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals.

1—Partially measurable / Non-observable verb well specified

Describe and represent the underlying structures and properties that define dilations and similar shapes. Use the structures and properties of dilation and similarity to solve problems (MP 7)

2—Measurable & well specified

Build and use models that include congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures. *Construct, justify and communicate* a clear and reasonable proof of the Pythagorean Theorem using triangle similarity. (MP 3, 4)

1—Partially measurable / Poorly specified well specified

Describe and represent side ratios in right triangles based upon the <i>underlying structure</i> of similarity. Connect consistency across similar right triangles to definitions of trigonometric ratios for acute angles. (MP 7)	1—Partially measurable / well specified	Poorly specified
Verify, justify and communicate the relationships that exist between trigonometric ratios and trigonometric identities. Keep the focus on the relationship between sine and cosine of complementary angles, the Pythagorean Identity, and the tangent ratio in terms of sine and cosine. (MP 3)	2—Measurable & well specified	
Flexibly, accurately, and efficiently use trigonometric ratios and the Pythagorean Theorem to solve <i>real-world and mathematical problems</i> that can be <i>modeled</i> with right triangles. (MP 2, 4)	2—Measurable & well specified	
Construct, justify and communicate a clear and reasonable argument that all circles are similar. Connect the <i>underlying structures</i> of similarity to relationships between angles, segments and arcs within circles. (MP 3, 7)	1—Partially measurable / well specified	Poorly specified
Describe and represent structures and patterns between inscribed angles, radii, and chords. Relationships include the relationships between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle. (MP 7)	2—Measurable & well specified	
Describe and represent, using similarity, the definition of a radian as the ratio of arc length to radius. Create a distinction between arc length and arc measure and be able to attend to <i>precisions</i> while relating each of these to radian measure or the formula for the area of a sector. (MP 6, 7)	0—Not measurable or poorly specified	Too vague; Poorly specified
Use structures and patterns to work with equations of circles, find different forms of the equations and different defining features of the circle, including the center, radius, and points located on the circle. Use right triangles with the same hypotenuse length, and the Pythagorean Theorem to derive the equation of a circle. (MP 7)	1—Partially measurable / well specified	

<i>Attend to precision and reasonableness</i> with respect to area and volume formulas (circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone) by applying informal arguments about how area and volume scale under similarity transformations. When scale factor k is applied to a figure, area scales by k^2 and volume scales by k^3. (MP 6) Use geometric shapes, their measures, and their properties to <i>model</i> real world objects and solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost). <i>Use these models to ask targeted and probing questions</i> with respect to area and volume <i>in context</i>. (MP 1, 2, 4)	0—Not measurable or poorly specified	Too vague; Poorly specified
Apply concepts of density based on area and volume in <i>modeling</i> situations. (MP4)	2—Measurable & well specified	
<i>Attend to precision and reasonableness</i> while using volume formulas for cylinders, pyramids, cones, and spheres to solve problems. (MP 6)	1—Partially measurable / well specified	Poorly specified
<i>Ask statistical questions</i> to investigate situations that can be explored using random samples from populations to make inferences about differences between two populations or associations between two quantitative variables. <i>Explain and justify</i> the distinction between correlation and causation. (MP 1, 3) <i>Select the appropriate statistical tools</i> to create a data collection plan. Collect and organize primary data for the statistical investigative question of interest or determine the validity that the data collected is useful to answer the statistical question of interest when using secondary data. (MP 5)	1—Partially measurable / well specified	Too vague; Multiple expectations
	1—Partially measurable / well specified	Multiple expectations; Too broad; Poorly specified

Compare two or more distributions with precision by selecting graphical displays (dot plots, histograms, and modified box plots to show outliers) that highlight features of interest. Analyze data by comparing measures of center (mean and median) and measures of variability (range, inter-quartile range and standard deviation) that are appropriate for the shape (skew, symmetry, outliers, modes) of the data distribution. Recognize how standard deviation builds on the mean absolute deviation and is another measure of how data values vary in a distribution. (MP 6)

1—Partially
measurable /
well specified

Multiple
expectations; Non-
observable verb

Analyze data to explore the association between two quantitative variables by using a **scatterplot** to determine and describe patterns of association such as clustering, positive or negative association, linear or nonlinear association, and effects of outliers. Use technology to find and interpret the correlation coefficient and use it to assess the strength of the linear relationship. *Attend to precision and reasonableness* with calculations. (MP 6)

1—Partially
measurable /
well specified

Multiple
expectations; Non-
observable verb

Analyze and use statistical evidence to *evaluate results* and answer statistical investigative questions about the differences between two or more population parameters. Identify ways to refine the question, data collection, visualization, or analysis. (MP 8)

0—Not
measurable /
well specified

Poorly specified;
Too vague; Too
broad

Justify statistical reasoning to evaluate results from analyses to answer the statistical investigative question about associations between two quantitative variables. For **scatter plots** that suggest a linear association, represent the relationship with a line of best fit and use the model of the linear equation to solve problems, including interpreting the slope and intercept in the context of the data. *Justify* statistical reasoning and results to others in a variety of formats including verbal, written, and visual. (MP 3, 8)

1—Partially
measurable /
well specified

Multiple
expectations; Too
broad

Ask statistical questions to investigate linear, exponential, and quadratic associations between two quantitative variables. (MP 1)

1—Partially
measurable /
well specified

Non-observable
verb; Too vague

<i>Select the appropriate statistical tools</i> to create a data collection plan. Collect and organize primary data to investigate the association between two variables and make conjectures. For secondary data, determine if data collected are useful to answer the statistical question of interest. (MP 5)	1—Partially measurable / well specified	Multiple expectations; Too broad; Poorly specified
Analyze data to explore the association between two quantitative variables. Use scatter plots to determine and explain patterns of association. Use technology to find and interpret the correlation coefficient and <i>evaluate the reasonableness</i> and strength of the model used. Determine whether a linear, exponential or quadratic function is the most reasonable model for the data. (MP 6, 8) Use the statistical evidence to evaluate results from analyses to answer questions about associations between two quantitative variables. Identify ways to refine investigative questions, data collection, visualization, or analysis. Represent the relationship with a curve of best fit and use the model of the equation to solve problems. <i>Justify</i> statistical reasoning and results to others in a variety of formats including verbal, written, and visual. (MP 3, 8)	1—Partially measurable / well specified	Multiple expectations
Recognize vector quantities as having both magnitude and direction. <i>Represent</i> vector quantities by directed line segments, and use appropriate symbols for vectors and their magnitudes. (MP 7)	1—Partially measurable / well specified	Multiple expectations; Poorly specified
Find and <i>represent</i> the components of a vector by subtracting the coordinates of an initial point from the coordinates of a terminal point. (MP 7)	2—Measurable & well specified	Non-observable verb
Add and subtract vectors and multiply a vector by a scalar. <i>Make sense</i> of the operations by connecting <i>with and without a context</i>. (MP 2)	1—Partially measurable / well specified	Too vague

Multiply a vector (regarded as a matrix with one column) by a matrix of suitable dimensions to produce another vector. Work with matrices as transformations of vectors. <i>Make sense</i> of this product by connecting it <i>with and without a context</i> . (MP 2)	1—Partially measurable / well specified	Too vague; Poorly specified
Solve <i>real world and mathematical problems</i> involving velocity and other quantities that can be represented by vectors. (MP 2)	2—Measurable & well specified	
<i>Derive</i> the equation of a parabola given a focus and directrix. (MP 3)	2—Measurable & well specified	
<i>Derive</i> the equations of ellipses and hyperbolas given the foci, using the fact that the sum or difference of distances from the foci is constant. (MP 3)	2—Measurable & well specified	

Measurability	Instructional Focus	
Measurability Notes	Instructional Focus Tag	Instructional Focus Notes

	Widely applicable prerequisite	
It is not clear what is meant by "construct definitions of the rigid transformations"; while being able to describe and use the definitions makes sense, actually coming up with the definitions of rigid transformations is probably not appropriate work for S1.	Widely applicable prerequisite	As written, constructing the definitions of rigid transformations is not appropriate work, but we give the benefit of the
"Select and use tools to strategically perform rigid transformation" is poorly specified; it is not clear what tools students should use or how "strategically" would be measured in an assessment item. "Attend to precision" and "understand" are not observable, so the PEs are again poorly specified.	Widely applicable prerequisite	
"clear and reasonable" is subjective; it isn't clear how proficiency would be judged. Also, what arguments would students be making about reflection and rotational symmetries of polygons? The PE is not specified. Finally, what attributes of parallelograms would students be justifying, and what does "informally" mean?	Widely applicable prerequisite	
It is not clear what tools students are expected to use or what revealed underlying structure they should be communicating about.	Widely applicable prerequisite	
	Widely applicable prerequisite	

Widely applicable
prerequisite

"develop flexibility" is not an observable behavior; what would be the evidence of this? Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

The first sentence is not measurable due to clarity issues; it is not clear what is meant by "Build and use models that include congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures" and so the PE is not clear. (Because the first sentence is poorly specified, it's difficult to say whether there are two distinct PEs here or not.)

Widely applicable
prerequisite

"Describe and represent side ratios in right triangles based upon the underlying structure of similarity" is not clear enough to understand what is expected of students.

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

"Connect the underlying structures of similarity to relationships between angles, segments and arcs within circles" is not clear enough to understand what is expected of students.

Widely applicable
prerequisite

Widely applicable
prerequisite

The measurability issues here are related to the clarity of the language.

Widely applicable
prerequisite

"Work with" is vague and poorly specified.

"Use structures and patterns" should also be further specified. (What structures and patterns?)

Widely applicable
prerequisite

"Attend to precision and reasonableness" are vague in terms of the PE; it is not clear what the evidence would be. The second sentence contains no PE.

Widely applicable prerequisite

"Ask targeted questions" is poorly specified and high inference; assessors must use their own judgment to determine whether the questions students are asking are 'targeted' or not.

Appropriate supporting work

Appropriate supporting work

"Attend to precision and reasonableness while using volume formulas..." is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate supporting work

"Ask statistical questions to investigate situations that can be explored using random samples from populations..." is fairly vague. The two PEs are not unrelated, but distinct performances.

Widely applicable prerequisite

"Select the appropriate statistical tools to create a data collection plan" is not specific about the expectations for students. The overall standard is exceptionally broad, covering a wide range of performances.

Widely applicable prerequisite

Recognize is a non-observable verb

Widely applicable
prerequisite

"to explore the association" is non-observable

Widely applicable
prerequisite

"Analyze and use statistical evidence to evaluate results" is very general; it is not clear exactly what is expected from the student. "differences between two or more population parameters" is also vague and poorly specified. "Identify ways to refine the question, data collection, visualization, or analysis" is also extremely broad and poorly specified.

Widely applicable
prerequisite

"justify statistical reasoning" is very broad

Widely applicable
prerequisite

The verb "investigate" is difficult to measure.

Widely applicable
prerequisite

"Select the appropriate statistical tools to create a data collection plan" is not specific about the expectations for students. The overall standard is exceptionally broad, covering a wide range of performances.

Widely applicable
prerequisite

This standard includes 3-4 distinct PEs which need to be assessed via different performances.

Widely applicable
prerequisite

What is the difference between "use statistics to evaluate results" vs. use THE statistical EVIDENCE to evaluate results"?

Widely applicable
prerequisite

"Recognize" is not measurable. Consider what observable behavior the teacher would look for. The 2 expectations are closely tied and can be evaluated via one performance.

Appropriate
supporting work

Appropriate
supporting work

The second sentence is vague and not clear.

Appropriate
supporting work

"Work with" is vague and poorly specified.

"Make sense" is not observable; it is not clear what behavior teachers would be looking for to know that students had made sense of matrix products. (It is also not clear grammatically what is meant by "connecting it with and without a context," so not clear how this would be measured.)

Appropriate
supporting work

Appropriate
supporting work

Appropriate
supporting work

Appropriate
supporting work

Clarity & Accessibility	
Clarity & Accessibility Score (0-2)	Clarity & Accessibility Issue Flag

2—Clear and accessible

1—Partially clear and accessible

Vague/ambiguous language; Insufficient guidance to understand PE

0—Not clear and accessible

Insufficient guidance to understand PE

0—Not clear and accessible

Vague/ambiguous language; Insufficient guidance to understand PE

1—Partially clear and accessible

Insufficient guidance to understand PE

2—Clear and accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

1—Partially
clear and
accessible

Insufficient guidance to
understand PE

1—Partially clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE
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2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE
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2—Clear and
accessible

1—Partially clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE; Unclear grammar/typo(s)
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1—Partially clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE
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1—Partially clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE
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1—Partially clear and accessible	Vague/ambiguous language
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1—Partially clear and accessible	Unclear grammar/typo(s)
--	-------------------------

1—Partially clear and accessible	Insufficient guidance to understand PE
--	---

1—Partially clear and accessible	Insufficient guidance to understand PE
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1—Partially clear and accessible	Unclear grammar/typo(s)
--	-------------------------

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE
--	---

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible



2—Clear and
accessible

2—Clear and
accessible

1—Partially
clear and
accessible

Vague/ambiguous language

1—Partially clear and accessible	Unclear grammar/typo(s); Insufficient guidance to understand PE
--	---

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

Clarity & Accessibility	
Clarity & Accessibility Notes	DOK Level (1-4)

2

Related to the measurability issue, it is not clear what is meant by "construct definitions of the rigid transformations," so it is hard to know what the PE is.

2

Related to the measurability issues, the PEs for this standard are unclear due to the language used.

2

Related to the measurability issue, the language in the standard is vague and lacks specificity, making the PEs unclear.

3

Again, the poor specificity of the standard makes it difficult to understand what is expected of the student in order to demonstrate proficiency.

2

3

3

3

2

Because the first sentence is poorly specified, it is not possible to tell what the PE is.

3

Because the first sentence is poorly specified, it is not possible to tell what the PE is. We suspect that what is intended is something like "Explain that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles "

2

3

2

Because the second sentence is poorly specified, it is not possible to tell what the PE is. We suspect that what is intended is something like "Using the similarity of all circles, identify and describe relationships between angles, segments and arcs within circles. "

3

2

The phrase "describe and represent" creates confusion here where the word "derive" would suffice (and is much clearer). "Create a distinction" is also unclear (vs for example "Explain the distinction). "Attend to precisions" is both grammatically incorrect (typo?) and is unclear in terms of the precise PE.

2

Because "use structures and patterns" and "work with equations" are vague and poorly specified, the PEs are not clear.

2

Because "Attend to precision and reasonableness" is poorly specified, the PE is not clear. It is not clear what the PE is for the second sentence. We also wonder if this standard was intended to also include content related to giving informal arguments for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone (e.g. via dissection arguments, Cavalieri's principle, and/or informal limit arguments). The standard seems to be nodding toward this content but these specific PEs are not currently included.

2

"Targeted" is high inference, requiring the educator or assessor to use their own judgment about what it means and whether a student has met the standard.

3

The phrase "concepts of density" (which also appears in other benchmark standards including the CCSS) may be confusing or unclear for some readers.

2

The clause "Attend to precision and reasonableness while using volume formulas " is unclear; it's not 100% clear what this means in terms of performance expectations. When we consider the original CCSS wording of this standard ("Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems"), the addition of "Attend to precision and reasonableness while [using]..." at the beginning feels forced, shifting a clear and measurable standard to one that is vague, unclear, not clearly measurable, and lacking sufficient guidance regarding what the performance expectation is for students.

2

Related to the measurability issue, more guidance is needed to understand the PE. Also explaining the distinction between correlation and causation makes sense, but it is not clear what is meant by justifying the distinction between correlation and causation. We suspect the intent is "Justify a conclusion about whether two variables have a causal or correlational relationship."

3

The second sentence is unclear.

3

3

3

Related to the measurability issues, this standard is vague
and needs more detail/specificity in order for the PE to be
clear. 3

3

3

4

2

3



2

2

The second sentence is vague and not clear.

2

The text "by connecting it with and without a context" is
not linguistically clear or mathematically precise. 2
"Connecting it with a context" makes sense; "connecting it
without a context" does not.

2

2

2

DOK	Mathematical Rigor	
DOK Notes	Mathematical Rigor Tag(s)	Mathematical Rigor Notes

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency;
Conceptual
Understanding

Conceptual
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Procedural Skill /
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Procedural Skill /
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Conceptual
Understanding;
Applications

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Conceptual
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Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

Conceptual
Understanding

Procedural Skill /
Fluency

Procedural Skill /
Fluency;
Conceptual
Understanding

Conceptual
Understanding

Procedural Skill /
Fluency

The type of task could
potentially be DOK 4
depending on the specifics,
but as written, can only
guarantee DOK 3.

Applications

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Applications

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Procedural Skill /
Fluency

Applications;
Conceptual
Understanding

Applications

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Applications

Applications

Conceptual
Understanding;
Applications

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Applications

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Applications

Conceptual
Understanding;
Applications



Procedural Skill /
Fluency

Procedural Skill /
Fluency

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency;
Applications

Procedural Skill /
Fluency

Procedural Skill /
Fluency

Developmental Appropriateness		
Developmental Appropriateness Score (0-2)	Developmental Appropriateness Flag	Developmental Appropriateness Notes

2—Developmentally appropriate

2—Developmentally appropriate

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For all of these,
depending on when they
land in the course, this
is typically covered in
Alg2/Math 3 or Trig in
most states.

2—Developmentally
appropriate

For all of these,
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Alg2/Math 3 or Trig in
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Integration of Appropriate Mathematical Pra		
Math Practice Integration	Math Practice Appropriateness	Identify Better Aligned MP Connection (if any and if misaligned)

2—All named practices integrated

2—All named practices appropriate

0—No practices integrated

2—All named practices appropriate

MP1

2—All named practices integrated

2—All named practices appropriate

2—All named practices integrated

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2—All named practices integrated

2—All named practices appropriate

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2—All named practices integrated	2—All named practices appropriate
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1—Any named practices integrated	1—Any named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	0—No practices appropriate	MP7; MP4
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP4
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1—Any named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	2—All named practices appropriate	MP5
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0—No practices integrated	2—All named practices appropriate	MP7
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0—No practices integrated	2—All named practices appropriate	MP7
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Communicating a definition doesn't
communicate an argument.

MP2 is not integrated. The standard mentions real world problems, but does not require students to make sense of mathematics by adding or removing a context.

MP 3 talks about communicating reasoning and justifying a mathematical statement, so the practice is both appropriate to the content and well-integrated.

MP 7 - While "connect the underlying structures of

Included in memo counts.	Memo	Math for All
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Included in memo counts.	Memo	Math for All
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It is difficult to say whether MP 2 is appropriately integrated into the standard, because as noted earlier, "Contextualize the implications through data storytelling" is an unclear PE.	Included in memo counts. The code in the AGA file has a typo: "S3.G", should be "S3.G3."	Memo	Math for All
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MP8 is not quite there yet.
Students are not asked specifically
to generate and prove conjectures.

MP2 is not integrated. The standard mentions real world problems, but does not require students to make sense of mathematics by adding or removing a context.

MP3 is not integrated; does not address justification or communicating an argument.

Code S2.G.13 is also used to code this same standard text in the non-AGA file.

MP3 is not integrated; does not address justification or communicating an argument.

Code S2.G.14 is also used to code this same standard text in the non-AGA file.

Domain	Standard ID (int)	Standard ID (AGA)	AGA Course
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Algebra (A)	S3. A. 1	A2. A. 1	A2
Algebra (A)	S3. A. 2	A2. A. 2	A2
Algebra (A)	S3. A. 3	A2. A. 3	A2
Algebra (A)	S3. A. 4	A2. A. 4	A2
Functions (F)	S3. F. 1	A2. F. 1	A2

Functions (F)	S3. F. 2	A2. F. 2	A2
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Functions (F)	S3. F. 3	A2. F. 3	A2
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Functions (F)	S3. F. 4	A2. F. 4	A2
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Functions (F)	S3. F. 5	A2. F. 5	A2
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Functions (F)	S3. F. 6	A2. F. 6	A2
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Functions (F)	S3. F. 7	A2. F. 7	A2
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Functions (F)	S3. F. 8	A2. F. 8	A2
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Data Science (D)	S3. D. 1	A2. D. 1	A2
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Data Science (D)	S3. D. 2	A2. D. 2	A2
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Data Science (D)	S3. D. 3	A2. D. 3	A2
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Data Science (D)	S3. D. 4	A2. D. 4	A2
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Data Science (D)	S3. D. 5	A2. D. 5	A2
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Data Science (D)	S3. D. 6	A2. D. 6	A2
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Data Science (D)	S3. D. 7	A2. D. 7	A2
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Data Science (D)	S3. D. 8	A2. D. 8	A2
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Algebra (A)	CS3. A. 5 (Extension of S3. A. 2)	CA2. A. 5	A2IA, A2C
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Algebra (A)	CS3. A. 6 (Extension of S3. A. 3)	CA2. A. 6	A2IA, A2C
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Algebra (A)	CS3. A. 7	CA2. A. 7	A2IA, A2C
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Algebra (A)	CS3. A. 10	CA2. A. 10	A2IA, A2C
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Algebra (A)	CS3. A. 11	CA2. A. 11	A2IA, A2C
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Algebra (A)	CS3. A. 12	CA2. A. 12	A2IA, A2C
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Number System (NS)	CS3. NS. 2	CA2. NS. 2	A2IA, A2C
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Number System (NS)	CS3. NS. 3	CA2. NS. 3	A2IA, A2C
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Functions (F)	CS3. F. 9 (Extension of S3. F. 1)	CA2. F. 9	A2IA, A2C
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Functions (F)	CS3. F. 10 (Extension of S3. F. 2)	CA2. F. 10	A2IA, A2C
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Functions (F)	CS3. F. 11 (Extension of S3. F. 3)	CA2. F. 11	A2IA, A2C
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Functions (F)	CS3. F. 12 (Extension of S3. F. 4)	CA2. F. 12	A2IA, A2C
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Functions (F)	CS3. F. 13 (Extension of S3. F. 5)	CA2. F. 13	A2IA, A2C
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Functions (F)	CS3. F. 16	CA2. F. 16	A2IA, A2C
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Functions (F)	CS3. F. 17	CA2. F. 17	A2IA, A2C
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Geometry/Trigonometry (G)	CS3. G. 4	CA2. G. 1	A2IA, A2C
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Geometry/Trigonometry (G)	CS3. G. 5	CA2. G. 2	A2IA, A2C
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Standard Text	Measurability Score (0–2)	Measurability Issue Flag
<i>Interpret</i> polynomial expressions given in factored form or standard form that represent a quantity in terms of a context. <i>Represent</i> polynomial expressions by using <i>technological tools</i> to produce equivalent forms (standard or factored) that reveal different properties, and <i>interpret one or more of their parts as a single entity</i>. (MP 2, 5, 7)	2—Measurable & well specified	
Create equations and inequalities in one variable to <i>model a context</i> and use them to solve problems. Include equations arising from linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, square root and cube root functions (MP 3)	2—Measurable & well specified	
For exponential models, express as a logarithm the solution to $f(t)=ab^{ct} = d$ where a, c, and d are numbers, and the base b is 2 or 10; evaluate the logarithm using <i>technological tools</i>. (MP 2)	2—Measurable & well specified	
Solve an equation of the form $f(x)=c$ for a simple function f that has an inverse. <i>Use the attributes of inverse relationships</i> to write inverse expressions. Include linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, logarithmic, square root, and cube root functions. (MP7)	2—Measurable & well specified	
Understand and interpret the features of polynomial, radical or logarithmic functions represented graphically using interval notation and inequalities by <i>applying and removing context</i>. Focus on these key features: domain, range, intervals of increase and/or decrease, location of absolute maximum and/or absolute minimum, intercepts and end behavior. <i>Build graphic models</i> that satisfy given key features. (MP 2, 4)	1—Partially measurable / well specified	Non-observable verb; Poorly specified

Build and use models of periodic phenomena with sine and cosine functions that connect real world contexts with amplitude, frequency, and midline. *Use structures and patterns* to support understanding of a domain extended beyond

0 to 90 degrees, or 0 to $\pi / 2$ radians.
(MP 4, 7)

0—Not measurable or poorly specified

Multiple expectations; Non-observable verb; Poorly specified

Understand and interpret key features (period, midline and amplitude) of sine and cosine functions represented graphically. *Build graphic models* that satisfy the given key features. (MP 4)

1—Partially measurable / well specified

Non-observable verb

Build graphical representations that show key features of polynomial, square root, cube root, exponential, logarithmic, and trigonometric (sine and cosine) functions expressed symbolically. *Select and use appropriate tools* to graph, by hand for simple cases, and using technology for more complicated cases. (MP 4, 5)

2—Measurable & well specified

Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(x+k)$ by exploring specific values of k for polynomial, square root, cube root, exponential, logarithmic, and trigonometric functions in and out of context. *Attend to precision* of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are *reasonable*. (MP 3, 6)

1—Partially measurable / well specified

Multiple expectations; Poorly specified

Use the attributes of inverse relationships to build models (tables, graphs, verbal descriptions and equations) for the inverses of linear, exponential, and quadratic functions. (MP 4, 7)

2—Measurable & well specified

Determine which function type (polynomial, square root, cubic root, exponential, or trigonometric) best models a given real world context. (MP 4)

2—Measurable & well specified

Justify that a quantity increasing exponentially eventually exceeds a quantity increasing linearly or quadratically, or (more generally) as a polynomial function. (MP 3)

2—Measurable & well specified

<i>Describe and represent structures and patterns</i> of data on two categorical variables. <i>Attend to precision and reasonableness</i> when summarizing categorical data in two-way frequency models, and <i>construct, justify, and communicate clear and reasonable arguments</i> about possible associations and trends in the data. (MP 3, 6, 7)	1—Partially measurable / well specified	Poorly specified
<i>Build and use probability models</i> including organized lists, venn-diagrams, tree diagrams, and two-way tables to find or estimate probabilities of compound or conditional events. (MP 4)	2—Measurable & well specified	
<i>Use multiple representations as tools to describe and represent structure</i> to build understanding of the addition rule, $P(A \cup B) = P(A) + P(B) - P(A \cap B)$. Understand the conditional probability of A given B as $P(A \cap B)/P(B)$. Interpret independence of A and B as saying that the conditional probability of B given A is the same as the probability of B. (MP 7)	1—Partially measurable / well specified	Multiple expectations; Non-observable verb
Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. <i>Select and use physical and/or tech tools</i> to estimate areas under the normal curve. (MP 5)	1—Partially measurable / well specified	Multiple expectations; Non-observable verb
<i>Formulate statistical investigative questions</i> that are either summary-based or comparative for surveys, observational studies, or experiments using primary and/or secondary data. <i>Select appropriate statistical tools</i> to develop a plan for data collection and analysis to address these questions. (MP 1, 5)	2—Measurable & well specified	

Select appropriate statistical tools to implement a data collection plan for primary data related to an investigative question. When using secondary data, assess its validity and relevance to answering the question. *Construct an argument* justifying the chosen data collection method (survey, observational study or experiment). Understand and apply best practices for designing sample surveys, experiments, and observational studies. (MP 3, 5)

1—Partially
measurable / well
specified

Multiple
expectations; Non-
observable verb

Attend to precision and reasonableness when summarizing and organizing collected data to answer an investigative question using tables, graphs, and numerical summary statistics. *Use models* from sample data to estimate population means or proportions. Employ simulation models for random sampling to determine approximate sampling distributions and compute p-values from those distributions. (MP 4, 6)

1—Partially
measurable / well
specified

Poorly specified

Use statistical evidence from the analyses to *evaluate results* and answer questions. Identify ways to refine investigative questions, data collection, visualization, or analysis. *Justify* outcomes or estimates of population characteristics, considering their plausibility compared to chance variation, in a variety of formats (verbal, written, visual). Communicate the interpretation of simulated p-values and determine statistical significance. (MP 3, 8)

1—Partially
measurable / well
specified

Multiple
expectations

Create equations and inequalities in one variable to <i>model a context</i> and use them to solve problems. Include equations arising from polynomial, exponential, rational and radical functions. (MP 3)	2—Measurable & well specified	
For exponential models, express as a logarithm the solution to $f(t)=ab^ct = d$ where a , b , c , and d are numbers, $b>0$; evaluate the logarithm using <i>technological tools</i> . <i>Justify</i> and use the properties of logarithms to generate equivalent expressions, connecting them to the properties of exponents. (MP 2, 3)	2—Measurable & well specified	
Understand the inverse relationship between exponents and logarithms. Use this <i>relationship</i> to solve problems involving exponents and logarithms. (MP 7)	1—Partially measurable / well specified	Non-observable verb
Add, subtract, multiply and divide polynomial and rational functions. <i>Justify</i> whether these operations result in new polynomial or rational functions. (MP 3)	2—Measurable & well specified	
Identify zeros of polynomial functions <i>using algebraic tools</i> , including factoring or the Remainder Theorem. (MP 5)	2—Measurable & well specified	

Expand and simplify polynomial sums, products, and powers using *structures and patterns*. (MP 7)

2—Measurable & well specified

Using the Fundamental Theorem of Algebra, *construct arguments* that verify the solutions to polynomial equations will always be numbers within the set of complex numbers and will have the form $a + bi$ where a and b are real numbers. (MP 3)

2—Measurable & well specified

Find solutions for polynomials that are limited to integer coefficients *using algebraic or technological tools*. (MP 5)

2—Measurable & well specified

Understand and interpret the features of polynomial, radical, rational or logarithmic functions represented graphically using interval notation and inequalities *by applying and removing context*. Focus on these key features: domain, range, intervals of increase and/or decreasing, location of absolute maximum and/or absolute minimum, intercepts, asymptotes, and end behavior. *Build graphic models* that satisfy given key features. (MP 2, 4)

1—Partially measurable / well specified

Non-observable verb

Build and use models of periodic phenomena with trigonometric functions that connect real world contexts with amplitude, frequency, and midline. *Use structures and patterns* to support understanding of a domain extended beyond 0 to 90 degrees, or

0—Not measurable or poorly specified

Multiple expectations; Non-observable verb; Poorly specified

0 to $\pi/2$ radians. (MP 4, 7)

Understand and interpret key features (period, midline and amplitude/asymptote) of trigonometric functions represented graphically. *Build graphic models* that satisfy the given key features. (MP 4)

1—Partially measurable / well specified

Non-observable verb

Build graphical representations that show key features of polynomial, radical, exponential, logarithmic, rational and trigonometric functions expressed symbolically. *Select and use appropriate tools* to graph, by hand for simple cases, and use technology for more complicated cases. (MP 4, 5)

2—Measurable & well specified

Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, $f(x+k)$ by exploring specific values of k for polynomial, radical, exponential, logarithmic, rational, and trigonometric functions in and out of context. *Attend to precision* of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are *reasonable*. (MP 3, 6)

1—Partially measurable / well specified

Multiple expectations; Poorly specified

Build a new function from a composition of functions that *models a relationship* between two quantities. (MP 4)

2—Measurable & well specified

Verify by composition that one function is the inverse of another function. *Build an invertible function* from a non-invertible function by restricting the domain. (MP 4)

2—Measurable & well specified

Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles *with and without context*. (MP 2)

1—Partially
measurable / well
specified

Non-observable verb

construct the unit circle with degrees and radians. *Describe and represent patterns* in the unit circle and use them as tools to evaluate the trigonometric functions at

1—Partially
measurable / well
specified

Multiple
expectations

Measureability	Instructional
Measurability Notes	Instructional Focus Tag

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

"Understand and interpret the features of ... functions ... **by applying and removing context**" is also poorly specified. It is not clear what this means in terms of observable behavior an assessor should be looking for.

This standard includes two distinct PEs that are unlikely to be assessable with a single performance. ("Build and use models of periodic phenomena...." and "Use structures and patterns to support...")

Because "model" is defined so broadly in MP4 (essentially used as a synonym for "representation"), it's not clear what type of model or models are expected.

Appropriate
supporting work

"Support understanding" is unobservable; it is not clear what specific behavior an educator or assessor would be looking for to determine proficiency.

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

Widely applicable
prerequisite

"Attend to precision of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are reasonable" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

Appropriate
supporting work

Widely applicable
prerequisite

Appropriate
supporting work

"Attend to precision and reasonableness when summarizing categorical data in two-way frequency models" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

Appropriate
supporting work

"Understand" is a non-observable verb. If the goal is to be able to know/memorize and restate the formula, then use that language: "Know that the conditional probability is..." If the goal is to be able to use the formula to solve problems, then use that language: "Use the formula to find the conditional probability...." If it is conceptual understanding, use an observable verb to describe the behavior an assessor would look for. (For example, "Explain why the conditional probability of A given B..." "Construct an argument to justify why the conditional probability of A given B..." etc.)
The first two PEs are closely related and it makes sense to have them in the same standard. The third is a separate skill.

Appropriate
supporting work

"Recognize" is a non-observable verb, so it is not clear what observable behavior an educator or assessor would be looking for. Consider language such as "Identify data sets for which such a procedure is not appropriate."

Appropriate
supporting work

Appropriate
supporting work

"Understand" is a non-observable verb. Consider either removing it or using language like "Describe and apply best practices..." or "Explain and apply best practices..." Widely applicable prerequisite

"Attend to precision and reasonableness when summarizing and organizing collected data" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for. Appropriate supporting work

- This standard contains four distinct PEs:
- * Use statistical evidence from the analyses to evaluate results and answer questions.
 - * Identify ways to refine investigative questions, data collection, visualization, or analysis.
 - * Justify outcomes or estimates of population characteristics, considering their plausibility compared to chance variation, in a variety of formats (verbal, written, visual).
 - * Communicate the interpretation of simulated p-values and determine statistical significance.
- Appropriate supporting work

The last two are closely related enough that they could both be evaluated by a single task, but the first two are distinctly different. A student could be proficient in the first, second, or third and fourth PEs without being proficient in the others, making this a difficult standard to assess with a single performance.

Widely applicable
prerequisite

Widely applicable
prerequisite

"Understand" is a non-observable verb. Consider removing the first sentence and rewriting the second to be something like "Use the inverse relationship between exponents and logarithms to solve problems involving exponents and logarithms. (MP 7)." It's the use of these relationships that is the observable behavior tied to the internal cognitive event of "understanding."

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

"Understand and interpret the features of ... functions ... by applying and removing context" is also poorly specified. It is not clear what this means in terms of observable behavior an assessor should be looking for.

This standard includes two distinct PEs that are unlikely to be assessable with a single performance. ("Build and use models of periodic phenomena...." and "Use structures and patterns to support...")

Because "model" is defined so broadly in MP4 (essentially used as a synonym for "representation"), it's not clear what type of model or models are expected.

Appropriate
supporting work

"Support understanding" is unobservable; it is not clear what specific behavior an educator or assessor would be looking for to determine proficiency.

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

Widely applicable
prerequisite

"Attend to precision of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are reasonable" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

Appropriate
supporting work

Widely applicable
prerequisite

"Understand" is a non-observable verb. Consider removing since applying the Law of Sines / Cosines seems to be the observable behavior that would indicate understanding. If not, consider what observable behavior would indicate understanding and change the language accordingly. (Explain, justify, etc.)

Appropriate supporting work

The two PEs described here are both significant enough that they should be assessed via different tasks.

Appropriate supporting work

Instructional Focus		Clarity
Instructional Focus Notes	Clarity & Accessibility Score (0-2)	Clarity & Accessibility Issue Flag

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

1—Partially clear and accessible

Vague/ambiguous language; Insufficient guidance to understand PE

1—Partially clear and accessible	Vague/ambiguous language
--	--------------------------

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Insufficient guidance to understand PE
--	---

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Unclear grammar/typo(s)
--	-------------------------

1—Partially
clear and
accessible Unclear grammar/typo(s)

2—Clear and
accessible

1—Partially
clear and
accessible Unclear grammar/typo(s)

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Insufficient guidance to understand PE
--	---

1—Partially clear and accessible	Other; Unclear grammar/typo(s); Mathematical error/imprecise usage of mathematical term(s)
--	--

2—Clear and
accessible

1—Partially
clear and Unclear grammar/typo(s)
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Vague/ambiguous language
--	--------------------------

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE
--	---

1—Partially clear and accessible	Vague/ambiguous language
--	--------------------------

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Insufficient guidance to understand PE
--	---

2—Clear and
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ty & Accessibility	
Clarity & Accessibility Notes	DOK Level (1-4)

2

2

2

2

"Understand and interpret the features of ... functions ... by applying and removing context" is unclear in terms of what it means, specifically, in terms of a PE for this standard.	3
---	---

Related to the note about poor specificity under the
measurability criteria, it is unclear what kind of
model or models are expected to meet the PE. 2

3

2

The mathematical meaning of the second sentence is
unclear and difficult to parse; though the meaning of
"attend to precision" is discussed in more detail in
the MP descriptions, it's not 100% clear what this
means in terms of performance expectations for this
standard. Similarly, the mathematical meaning of the
clause "carefully evaluate whether the ideas and
processes observed during exploration are reasonable"
is also unclear. 3

2

2

Current grammar is unclear; consider "Justify **the fact**
that a quantity increasing exponentially...". 2

There is something unclear and difficult to parse about the sentence "Describe and represent structures and patterns of data on two categorical variables." It is clear what it would mean to "Describe and represent patterns of data," but it's less clear what it would mean to "Describe and represent structures on two categorical variables." (Or is it, "Describe and represent structures of data on two categorical variables"? Which is equally unclear.)

3

2

The clause "Use multiple representations as tools to describe and represent structure to build understanding of the addition rule" (particularly the two infinitive phrases back to back) is ungainly and difficult for the reader to parse.

3

2

3

"Understand and apply best practices for designing sample surveys, experiments, and observational studies" needs additional guidance regarding what the best practices are in order for educators and assessors to be able to determine whether a student has reached proficiency.

3

"Attend to precision and reasonableness when summarizing and organizing collected data to answer an investigative question using tables, graphs, and numerical summary statistics" is ungainly and difficult for the reader to parse.

Looking at the second sentence, the original wording from CCSS is: "Use data from a sample survey to estimate a population mean or proportion." The revised language ("Use models from sample data") is mathematically imprecise; one can use sample data to **create a model** which can then be used to estimate a population mean, but the current wording skips over this step, implying that the sample data *is itself the model*, which is inaccurate.

3

3



"Model a context" is not technically incorrect, but may cause more confusion than language like, for example, "model a situation" or "model a contextual situation."

'Situation' suggests a bounded, self-contained scenario, whereas 'context' suggests the surrounding frame & background that gives meaning to something else (context of a remark, context for a decision); the defining job of 'context' is to be peripheral. For this reason, the phrase "model a context" may come across as taking the background information (context) and promoting it to the object of study (the situation being modeled).

2

3

2

3

2

The word "simplify" in mathematics is ambiguous and should be avoided in benchmark/standard documents because "simpler" does not have a rigorous mathematical definition. In many cases what constitutes a "simpler" form of an expression is ambiguous, and many so-called "simplest forms" are just conventions rather than mathematical necessities. For example, both $x^2 + 5x + 6$ and $(x + 2)(x + 3)$ could be seen as "simpler" depending on the goal. Likewise, there is not widespread agreement among mathematicians about whether (for example) $x/2$ simpler than $\frac{1}{2}x$ or $0.5x$, or whether a^{-1} is simpler than $1/a$, whether $(x + 1)/2$ simpler than $x/2 + \frac{1}{2}$, etc. If this standard is referring to writing polynomial sums, products, and powers in forms without parentheses or other grouping symbols, it should state that clearly. (That said, we wouldn't recommend this, as a form with no grouping symbols is not always the form that is easiest to work with in a given situation.)

2

2

2

"Understand and interpret the features of ... functions ... by applying and removing context" is unclear in terms of what it means, specifically, in terms of a PE for this standard.

3

Related to the note about poor specificity under the
measurability criteria, it is unclear what kind of
model or models are expected to meet the PE. 2

3

2

The mathematical meaning of the second sentence is
unclear and difficult to parse; though the meaning of
"attend to precision" is discussed in more detail in
the MP descriptions, it's not 100% clear what this
means in terms of performance expectations for this
standard. Similarly, the mathematical meaning of the
clause "carefully evaluate whether the ideas and
processes observed during exploration are reasonable"
is also unclear. 3

2

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DOK	Mathematical Rigor	
DOK Notes	Mathematical Rigor Tag(s)	Mathematical Rigor Notes

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.	Conceptual Understanding; Procedural Skill / Fluency
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The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.	Procedural Skill / Fluency; Applications
--	---

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.	Procedural Skill / Fluency
--	-----------------------------------

Procedural Skill / Fluency

Conceptual Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2. The intent of this standard seems to be at the DOK 3 level, but there are ways of meeting it that could be limited to DOK 2.

Conceptual
Understanding;
Applications

Conceptual
Understanding

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

Depending on what the observable performance expectation is for "recognize," this could potentially be DOK 3. As written we can only say for sure that it is at least DOK 2.

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.

Conceptual
Understanding;
Applications

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.	Conceptual Understanding; Applications
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Giving the benefit of the doubt with this standards because it is poorly specified, making it difficult to assess DOK level with confidence.	Procedural Skill / Fluency; Conceptual Understanding; Applications
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The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.	Conceptual Understanding; Applications
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The type of task could
potentially be DOK 3 depending on the specifics, but as
written, can only guarantee DOK 2.

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency;
Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency

Procedural Skill /
Fluency

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency

Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Applications

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Procedural Skill /
Fluency

Procedural Skill /
Fluency

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could
potentially be DOK 3 depending
on the specifics, but as
written, can only guarantee
DOK 2.

Procedural Skill /
Fluency;
Conceptual
Understanding

Developmental Appropriateness		
Developmental Appropriateness Score (0-2)	Developmental Appropriateness Flag	Developmental Appropriateness Notes

2—Developmentally appropriate

2—Developmentally appropriate

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Integration of Appropriate Mathematical Practices		
Math Practice Integration	Math Practice Appropriateness	Identify Better Aligned MP Connection (if any and if misaligned)

2—All named practices integrated	2—All named practices appropriate	
0—No practices integrated	2—All named practices appropriate	MP4; MP7
0—No practices integrated	2—All named practices appropriate	MP4; MP5
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	MP3; MP7

2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP3; MP7
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2—All named practices integrated	2—All named practices appropriate	MP7
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1—Any named practices integrated	2—All named practices appropriate	MP7
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP5
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	2—All named practices appropriate	MP3
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2—All named practices integrated	2—All named practices appropriate	MP6; MP7
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated 2—All named practices appropriate

2—All named practices integrated 2—All named practices appropriate

2—All named practices integrated 2—All named practices appropriate



0—No practices integrated	2—All named practices appropriate	MP4; MP8
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1—Any named practices integrated	1—Any named practices appropriate	MP7; MP5
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2—All named practices integrated	2—All named practices appropriate	
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2—All named practices integrated	2—All named practices appropriate	MP7
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2—All named practices integrated	2—All named practices appropriate	
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP7
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP3; MP7
-------------------------------------	--------------------------------------	----------

2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	MP3; MP7
2—All named practices integrated	2—All named practices appropriate	MP7
1—Any named practices integrated	2—All named practices appropriate	MP7
2—All named practices integrated	2—All named practices appropriate	
0—No practices integrated	0—No practices appropriate	MP3; MP7

2—All named practices integrated 2—All named practices appropriate

2—All named practices integrated 2—All named practices appropriate MP3

Mathematical Practice Integration Notes	Notes	Memo
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	Included in memo counts.	Memo
Looks like this was a typo and that MP 4 is the practice that was intended.	Included in memo counts.	Memo
While MP 2 could be appropriate for this standard, its language does not suggest that that practice is the focus; MP 4 and 5 are the more obvious choices.	Included in memo counts.	Memo
	Included in memo counts.	Memo
	Included in memo counts.	Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

MP 3 is a reasonable match for this standard, but the language in the second sentence of standard is unclear and difficult to parse, making it difficult to tell if MP 6 is meaningfully integrated into the standard. Aspects of MP 6 *could* be aligned to this content if the standard were rewritten to address this issue.

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

MP 7 can align well with this content, but the clarity and measurability issues with the current wording make it difficult to tell whether MP 7 is currently meaningfully integrated with the content.

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo



Looks like this was a typo and that MP 4 is the practice that was intended. Standard is listed twice in the standards PDF sheet. This instance is included in the memo counts. Memo

While MP 2 could be appropriate for this standard, its language does not suggest that that practice is the focus; looks like this was a typo and that MP 5 is the practice that was intended. Standard is listed twice in the standards PDF sheet. This instance is included in the memo counts. Memo

Standard is listed twice in the standards PDF sheet. This instance is included in the memo counts. Memo

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memo counts.

Standard is listed twice in the standards
PDF sheet. This instance is included in the Memo
memo counts.

MP 3 is a reasonable match for
this standard, but the language
in the second sentence of
standard is unclear and
difficult to parse, making it
difficult to tell if MP 6 is
meaningfully integrated into the
standard. Aspects of MP 6 *could*
be aligned to this content if
the standard were rewritten to
address this issue.

Standard is listed twice in the standards
PDF sheet. This instance is included in the Memo
memo counts.

Code CS3.F.15 is also used to code this
standard text.

Code CS3.F.16 is listed twice in the
standards PDF and contains different
standard text for each instance.

Code CS3.F.16 is also used to code this
same standard text. This instance does not
include MP3, but the other instance does.

Code CS3.F.17 is listed twice in the
standards PDF and contains different
standards text in each instance.

Modeling is not addressed in the
language or content of this
standard.

Standard is listed twice in the standards
PDF sheet. This instance is included in the Memo
memo counts.

Standard is listed twice in the standards
PDF sheet. This instance is included in the Memo
memo counts.

Math for All

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Domain	Standard ID (int)	Standard ID (AGA)	AGA Course
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Algebra (A)	S3. A. 1	A2. A. 1	A2
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Algebra (A)	S3. A. 2	A2. A. 2	A2
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Algebra (A)	S3. A. 3	A2. A. 3	A2
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Algebra (A)	S3. A. 4	A2. A. 4	A2
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Functions (F)	S3. F. 1	A2. F. 1	A2
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Functions (F)	S3. F. 2	A2. F. 2	A2
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Functions (F)	S3. F. 3	A2. F. 3	A2
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Functions (F)	S3. F. 4	A2. F. 4	A2
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Functions (F)	S3. F. 5	A2. F. 5	A2
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Functions (F)	S3. F. 6	A2. F. 6	A2
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Functions (F)	S3. F. 7	A2. F. 7	A2
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Functions (F)	S3. F. 8	A2. F. 8	A2
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Data Science (D)	S3. D. 1	A2. D. 1	A2
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Data Science (D)	S3. D. 2	A2. D. 2	A2
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Data Science (D)	S3. D. 3	A2. D. 3	A2
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Data Science (D)	S3. D. 4	A2. D. 4	A2
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Data Science (D)	S3. D. 5	A2. D. 5	A2
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Data Science (D)	S3. D. 6	A2. D. 6	A2
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Data Science (D)	S3. D. 7	A2. D. 7	A2
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Data Science (D)	S3. D. 8	A2. D. 8	A2
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Algebra (A)	CS3. A. 5 (Extension of S3. A. 2)	CA2. A. 5	A2C
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Algebra (A)	CS3. A. 6 (Extension of S3. A. 3)	CA2. A. 6	A2C
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Algebra (A)	CS3. A. 7	CA2. A. 7	A2C
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Algebra (A)	CS3. A. 8	CA2. A. 8	A2C
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Algebra (A)	CS3. A. 9	CA2. A. 9	A2C
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Algebra (A)	CS3. A. 10	CA2. A. 10	A2C
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Algebra (A)	CS3. A. 11	CA2. A. 11	A2C
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Algebra (A)	CS3. A. 12	CA2. A. 12	A2C
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Algebra (A)	CS3. A. 13	CA2. A. 13	A2C
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Number System (NS)	CS3. NS. 1	CA2. NS. 1	A2C
Number System (NS)	CS3. NS. 2	CA2. NS. 2	A2C
Number System (NS)	CS3. NS. 3	CA2. NS. 3	A2C
Functions (F)	CS3. F. 9 (Extension of S3. F. 1)	CA2. F. 9	A2C
Functions (F)	CS3. F. 10 (Extension of S3. F. 2)	CA2. F. 10	A2C
Functions (F)	CS3. F. 11 (Extension of S3. F. 3)	CA2. F. 11	A2C

Functions (F)	CS3. F. 12 (Extension of S3. F. 4)	CA2. F. 12	A2C
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Functions (F)	CS3. F. 13 (Extension of S3. F. 5)	CA2. F. 13	A2C
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Functions (F)	CS3. F. 14	CA2. F. 14	A2C
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Functions (F)	CS3. F. 15	CA2. F. 15	A2C
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Functions (F)	CS3. F. 16	CA2. F. 16	A2C
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Functions (F)	CS3. F. 17	CA2. F. 17	A2C
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Geometry/T rigonometr y (G)	CS3. G. 4	CA2. G. 1	A2C
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Geometry/T rigonometry (G)	CS3. G. 5	CA2. G. 2	A2C
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Geometry/T rigonometry (G)	CS3. G. 6	CA2. G. 3	A2C
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Standard Text	Measurability Score (0–2)	Measurability Issue Flag
<i>Interpret</i> polynomial expressions given in factored form or standard form that represent a quantity in terms of a context. <i>Represent</i> polynomial expressions by using <i>technological tools</i> to produce equivalent forms (standard or factored) that reveal different properties, and <i>interpret one or more of their parts as a single entity</i>. (MP 2, 5, 7)	2—Measurable & well specified	
Create equations and inequalities in one variable to <i>model a context</i> and use them to solve problems. Include equations arising from linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, square root and cube root functions (MP 3)	2—Measurable & well specified	
For exponential models, express as a logarithm the solution to $f(t)=ab^{ct} = d$ where a, c, and d are numbers, and the base b is 2 or 10; evaluate the logarithm using <i>technological tools</i>. (MP 2)	2—Measurable & well specified	
Solve an equation of the form $f(x)=c$ for a simple function f that has an inverse. <i>Use the attributes of inverse relationships</i> to write inverse expressions. Include linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, logarithmic, square root, and cube root functions. (MP7)	2—Measurable & well specified	
Understand and interpret the features of polynomial, radical or logarithmic functions represented graphically using interval notation and inequalities by <i>applying and removing context</i>. Focus on these key features: domain, range, intervals of increase and/or decrease, location of absolute maximum and/or absolute minimum, intercepts and end behavior. <i>Build graphic models</i> that satisfy given key features. (MP 2, 4)	1—Partially measurable / well specified	Non-observable verb; Poorly specified

Build and use models of periodic phenomena with sine and cosine functions that connect real world contexts with amplitude, frequency, and midline. *Use structures and patterns* to support understanding of a domain extended beyond

0 to 90 degrees, or 0 to $\pi / 2$ radians.
(MP 4, 7)

0—Not measurable or poorly specified

Multiple expectations; Non-observable verb; Poorly specified

Understand and interpret key features (period, midline and amplitude) of sine and cosine functions represented graphically. *Build graphic models* that satisfy the given key features. (MP 4)

1—Partially measurable / well specified

Non-observable verb

Build graphical representations that show key features of polynomial, square root, cube root, exponential, logarithmic, and trigonometric (sine and cosine) functions expressed symbolically. *Select and use appropriate tools* to graph, by hand for simple cases, and using technology for more complicated cases. (MP 4, 5)

2—Measurable & well specified

Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(x+k)$ by exploring specific values of k for polynomial, square root, cube root, exponential, logarithmic, and trigonometric functions in and out of context. *Attend to precision* of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are *reasonable*. (MP 3, 6)

1—Partially measurable / well specified

Multiple expectations; Poorly specified

Use the attributes of inverse relationships to build models (tables, graphs, verbal descriptions and equations) for the inverses of linear, exponential, and quadratic functions. (MP 4, 7)

2—Measurable & well specified

Determine which function type (polynomial, square root, cubic root, exponential, or trigonometric) best models a given real world context. (MP 4)

2—Measurable & well specified

<i>Justify</i> that a quantity increasing exponentially eventually exceeds a quantity increasing linearly or quadratically, or (more generally) as a polynomial function. (MP 3)	2—Measurable & well specified	
<i>Describe and represent structures and patterns</i> of data on two categorical variables. <i>Attend to precision and reasonableness</i> when summarizing categorical data in two-way frequency models, and <i>construct, justify, and communicate clear and reasonable arguments</i> about possible associations and trends in the data. (MP 3, 6, 7)	1—Partially measurable / well specified	Poorly specified
<i>Build and use probability models</i> including organized lists, venn-diagrams, tree diagrams, and two-way tables to find or estimate probabilities of compound or conditional events. (MP 4)	2—Measurable & well specified	
<i>Use multiple representations as tools to describe and represent structure</i> to build understanding of the addition rule, $P(A \cup B) = P(A) + P(B) - P(A \cap B)$. Understand the conditional probability of A given B as $P(A \cap B)/P(B)$. Interpret independence of A and B as saying that the conditional probability of B given A is the same as the probability of B. (MP 7)	1—Partially measurable / well specified	Multiple expectations; Non-observable verb
Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. <i>Select and use physical and/or tech tools</i> to estimate areas under the normal curve. (MP 5)	1—Partially measurable / well specified	Multiple expectations; Non-observable verb
<i>Formulate statistical investigative questions</i> that are either summary-based or comparative for surveys, observational studies, or experiments using primary and/or secondary data. <i>Select appropriate statistical tools</i> to develop a plan for data collection and analysis to address these questions. (MP 1, 5)	2—Measurable & well specified	

Select appropriate statistical tools to implement a data collection plan for primary data related to an investigative question. When using secondary data, assess its validity and relevance to answering the question. *Construct an argument* justifying the chosen data collection method (survey, observational study or experiment). Understand and apply best practices for designing sample surveys, experiments, and observational studies. (MP 3, 5)

1—Partially
measurable / well
specified

Multiple
expectations; Non-
observable verb

Attend to precision and reasonableness when summarizing and organizing collected data to answer an investigative question using tables, graphs, and numerical summary statistics. *Use models* from sample data to estimate population means or proportions. Employ simulation models for random sampling to determine approximate sampling distributions and compute p-values from those distributions. (MP 4, 6)

1—Partially
measurable / well
specified

Poorly specified

Use statistical evidence from the analyses to *evaluate results* and answer questions. Identify ways to refine investigative questions, data collection, visualization, or analysis. *Justify* outcomes or estimates of population characteristics, considering their plausibility compared to chance variation, in a variety of formats (verbal, written, visual). Communicate the interpretation of simulated p-values and determine statistical significance. (MP 3, 8)

1—Partially
measurable / well
specified

Multiple
expectations

Create equations and inequalities in one variable to <i>model a context</i> and use them to solve problems. Include equations arising from polynomial, exponential, rational and radical functions. (MP 3)	2—Measurable & well specified	
For exponential models, express as a logarithm the solution to $f(t)=ab^ct = d$ where a , b , c , and d are numbers, $b>0$; evaluate the logarithm using <i>technological tools</i> . <i>Justify</i> and use the properties of logarithms to generate equivalent expressions, connecting them to the properties of exponents. (MP 2, 3)	2—Measurable & well specified	
Understand the inverse relationship between exponents and logarithms. Use this <i>relationship</i> to solve problems involving exponents and logarithms. (MP 7)	1—Partially measurable / well specified	Non-observable verb
<i>Model</i> arithmetic and geometric series, including infinite geometric series algebraically, graphically, and numerically. (MP 4)	2—Measurable & well specified	
<i>Build and use expressions</i> including sigma notation to represent the sum of a finite arithmetic or geometric series. (MP 4)	2—Measurable & well specified	
Add, subtract, multiply and divide polynomial and rational functions. <i>Justify</i> whether these operations result in new polynomial or rational functions. (MP 3)	2—Measurable & well specified	
Identify zeros of polynomial functions using <i>algebraic tools</i> , including factoring or the Remainder Theorem. (MP 5)	2—Measurable & well specified	
Expand and simplify polynomial sums, products, and powers using <i>structures and patterns</i> . (MP 7)	2—Measurable & well specified	
Solve compound inequalities in one variable, including absolute value inequalities using <i>algebraic or technological tools</i> . (MP 5)	2—Measurable & well specified	

<i>Represent</i> addition, subtraction, and multiplication geometrically on the complex plane. Perform algebraic operations with complex numbers on the complex plane. (MP 7)	2—Measurable & well specified	
Using the Fundamental Theorem of Algebra, <i>construct arguments</i> that verify the solutions to polynomial equations will always be numbers within the set of complex numbers and will have the form $a + bi$ where a and b are real numbers. (MP 3)	2—Measurable & well specified	
Find solutions for polynomials that are limited to integer coefficients <i>using algebraic or technological tools</i>. (MP 5)	2—Measurable & well specified	
Understand and interpret the features of polynomial, radical, rational or logarithmic functions represented graphically using interval notation and inequalities by <i>applying and removing context</i>. Focus on these key features: domain, range, intervals of increase and/or decreasing, location of absolute maximum and/or absolute minimum, intercepts, asymptotes, and end behavior. <i>Build</i> graphic <i>models</i> that satisfy given key features. (MP 2, 4)	1—Partially measurable / well specified	Non-observable verb
<i>Build and use models</i> of periodic phenomena with trigonometric functions that connect real world contexts with amplitude, frequency, and midline. <i>Use structures and patterns</i> to support understanding of a domain extended beyond 0 to 90 degrees, or 0 to $\pi/2$ radians. (MP 4, 7)	0—Not measurable or poorly specified	Multiple expectations; Non-observable verb; Poorly specified
Understand and interpret key features (period, midline and amplitude/asymptote) of trigonometric functions represented graphically. <i>Build</i> graphic models that satisfy the given key features. (MP 4)	1—Partially measurable / well specified	Non-observable verb

<i>Build graphical representations</i> that show key features of polynomial, radical, exponential, logarithmic, rational and trigonometric functions expressed symbolically. <i>Select and use appropriate tools</i> to graph, by hand for simple cases, and use technology for more complicated cases. (MP 4, 5) Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, $f(x+k)$ by exploring specific values of k for polynomial, radical, exponential, logarithmic, rational, and trigonometric functions in and out of context. <i>Attend to precision</i> of language and notation while <i>constructing arguments</i> and carefully evaluate whether the ideas and processes observed during exploration are <i>reasonable</i>. (MP 3, 6) Define a curve parametrically, and <i>create a graphical model</i>. (MP 4)	2—Measurable & well specified	
	1—Partially measurable / well specified	Multiple expectations; Poorly specified
	1—Partially measurable / well specified	Multiple expectations
<i>Build</i> a new function from a composition of functions that models a relationship between two quantities. (MP 4)	2—Measurable & well specified	
<i>Verify</i> by composition that one function is the inverse of another function. <i>Build</i> an invertible function from a non-invertible function by restricting the domain. (MP 3, 4)	2—Measurable & well specified	
Use inverse trigonometric functions to solve equations and inequalities <i>with and without a context</i>. Determine the <i>reasonableness</i> of solutions using <i>context</i>. (MP 2, 6)	2—Measurable & well specified	
Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles <i>with and without context</i>. (MP 2)	1—Partially measurable / well specified	Non-observable verb

construct the unit circle with degrees and radians. *Describe and represent patterns* in the unit circle and use them as tools to evaluate the trigonometric functions at

1—Partially
measurable / well
specified

Multiple
expectations

Prove the addition and subtraction formulas for sine, cosine and tangent and use them *as tools* to solve problems. (MP 5)

2—Measurable & well
specified

Measurability Notes

Instructional
Focus Tag

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

"Understand and interpret the features of ... functions ... **by applying and removing context**" is also poorly specified. It is not clear what this means in terms of observable behavior an assessor should be looking for.

This standard includes two distinct PEs that are unlikely to be assessable with a single performance. ("Build and use models of periodic phenomena...." and "Use structures and patterns to support...")

Because "model" is defined so broadly in MP4 (essentially used as a synonym for "representation"), it's not clear what type of model or models are expected.

Appropriate
supporting work

"Support understanding" is unobservable; it is not clear what specific behavior an educator or assessor would be looking for to determine proficiency.

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

Widely applicable
prerequisite

"Attend to precision of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are reasonable" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

Appropriate
supporting work

Widely applicable
prerequisite

Appropriate
supporting work

"Attend to precision and reasonableness when summarizing categorical data in two-way frequency models" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

Appropriate
supporting work

"Understand" is a non-observable verb. If the goal is to be able to know/memorize and restate the formula, then use that language: "Know that the conditional probability is..." If the goal is to be able to use the formula to solve problems, then use that language: "Use the formula to find the conditional probability...." If it is conceptual understanding, use an observable verb to describe the behavior an assessor would look for. (For example, "Explain why the conditional probability of A given B...." "Construct an argument to justify why the conditional probability of A given B..." etc.)

Appropriate
supporting work

The first two PEs are closely related and it makes sense to have them in the same standard. The third is a separate skill.

"Recognize" is a non-observable verb, so it is not clear what observable behavior an educator or assessor would be looking for. Consider language such as "Identify data sets for which such a procedure is not appropriate."

Appropriate
supporting work

Appropriate
supporting work

"Understand" is a non-observable verb. Consider either removing it or using language like "Describe and apply best practices..." or "Explain and apply best practices..."

Widely applicable prerequisite

"Attend to precision and reasonableness when summarizing and organizing collected data" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate supporting work

- This standard contains four distinct PEs:
- * Use statistical evidence from the analyses to evaluate results and answer questions.
 - * Identify ways to refine investigative questions, data collection, visualization, or analysis.
 - * Justify outcomes or estimates of population characteristics, considering their plausibility compared to chance variation, in a variety of formats (verbal, written, visual).
 - * Communicate the interpretation of simulated p-values and determine statistical significance.
- Appropriate supporting work

The last two are closely related enough that they could both be evaluated by a single task, but the first two are distinctly different. A student could be proficient in the first, second, or third and fourth PEs without being proficient in the others, making this a difficult standard to assess with a single performance.

Widely applicable
prerequisite

Widely applicable
prerequisite

"Understand" is a non-observable verb. Consider removing the first sentence and rewriting the second to be something like "Use the inverse relationship between exponents and logarithms to solve problems involving exponents and logarithms. (MP 7)." It's the use of these relationships that is the observable behavior tied to the internal cognitive event of "understanding."

Widely applicable
prerequisite

Widely applicable
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Widely applicable
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Widely applicable
prerequisite

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

"Understand and interpret the features of ... functions ... by applying and removing context" is also poorly specified. It is not clear what this means in terms of observable behavior an assessor should be looking for.

This standard includes two distinct PEs that are unlikely to be assessable with a single performance. ("Build and use models of periodic phenomena..." and "Use structures and patterns to support...")

Because "model" is defined so broadly in MP4 (essentially used as a synonym for "representation"), it's not clear what type of model or models are expected.

Appropriate
supporting work

"Support understanding" is unobservable; it is not clear what specific behavior an educator or assessor would be looking for to determine proficiency.

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

Widely applicable
prerequisite

"Attend to precision of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are reasonable" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

This standard includes two distinct PEs (define a curve parametrically; create a graphical model).

Appropriate
supporting work

Appropriate
supporting work

Widely applicable
prerequisite

Appropriate
supporting work

"Understand" is a non-observable verb. Consider removing since applying the Law of Sines / Cosines seems to be the observable behavior that would indicate understanding. If not, consider what observable behavior would indicate understanding and change the language accordingly. (Explain, justify, etc.)

Appropriate
supporting work

The two PEs described here are both significant enough
that they should be assessed via different tasks.

Appropriate
supporting work

Appropriate
supporting work

Instructional Focus		Clarity
Instructional Focus Notes	Clarity & Accessibility Score (0-2)	Clarity & Accessibility Issue Flag

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

1—Partially clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE
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1—Partially clear and accessible	Vague/ambiguous language
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2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Insufficient guidance to understand PE
--	---

2—Clear and
accessible

2—Clear and
accessible

1—Partially
clear and Unclear grammar/typo(s)
accessible

1—Partially
clear and Unclear grammar/typo(s)
accessible

2—Clear and
accessible

1—Partially
clear and Unclear grammar/typo(s)
accessible

2—Clear and
accessible

2—Clear and
accessible

1—Partially
clear and
accessible

Insufficient guidance to
understand PE

1—Partially
clear and
accessible

Other; Unclear
grammar/typo(s);
Mathematical
error/imprecise usage of
mathematical term(s)

2—Clear and
accessible



1—Partially
clear and accessible Unclear grammar/typo(s)

2—Clear and
accessible

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2—Clear and
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1—Partially
clear and accessible Vague/ambiguous language

2—Clear and
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2—Clear and
accessible

1—Partially
clear and
accessible

Vague/ambiguous
language; Insufficient
guidance to understand
PE

1—Partially
clear and
accessible

Vague/ambiguous language

2—Clear and
accessible

2—Clear and
accessible

1—Partially
clear and
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Insufficient guidance to
understand PE

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ty & Accessibility	
Clarity & Accessibility Notes	DOK Level (1-4)

2

2

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2

"Understand and interpret the features of ... functions ... by applying and removing context" is unclear in terms of what it means, specifically, in terms of a PE for this standard.	3
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Related to the note about poor specificity under the
measurability criteria, it is unclear what kind of
model or models are expected to meet the PE. 2

3

2

The mathematical meaning of the second sentence is
unclear and difficult to parse; though the meaning of
"attend to precision" is discussed in more detail in
the MP descriptions, it's not 100% clear what this
means in terms of performance expectations for this
standard. Similarly, the mathematical meaning of the
clause "carefully evaluate whether the ideas and
processes observed during exploration are reasonable"
is also unclear. 3

2

2

Current grammar is unclear; consider "Justify **the fact**
that a quantity increasing exponentially..." 2

There is something unclear and difficult to parse about
the sentence "Describe and represent structures and
patterns of data on two categorical variables." It is
clear what it would mean to "Describe and represent
patterns of data," but it's less clear what it would 3
mean to "Describe and represent structures on two
categorical variables." (Or is it, "Describe and
represent structures of data on two categorical
variables"? Which is equally unclear."

2

The clause "Use multiple representations as tools to
describe and represent structure to build understanding
of the addition rule" (particularly the two infinitive 3
phrases back to back) is ungainly and difficult for the
reader to parse.

2

3

"Understand and apply best practices for designing sample surveys, experiments, and observational studies" needs additional guidance regarding what the best practices are in order for educators and assessors to be able to determine whether a student has reached proficiency.

3

"Attend to precision and reasonableness when summarizing and organizing collected data to answer an investigative question using tables, graphs, and numerical summary statistics" is ungainly and difficult for the reader to parse.

Looking at the second sentence, the original wording from CCSS is: "Use data from a sample survey to estimate a population mean or proportion." The revised language ("Use models from sample data") is mathematically imprecise; one can use sample data to **create a model** which can then be used to estimate a population mean, but the current wording skips over this step, implying that the sample data *is itself the model*, which is inaccurate.

3

3



See notes about the phrase "model a context" for
CS3.A.5. 2

3

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See notes about the word "simplify" in mathematics for
CS3.A.12. 2

2

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2

"Understand and interpret the features of ... functions
... by applying and removing context" is unclear in
terms of what it means, specifically, in terms of a PE
for this standard. 3

Related to the note about poor specificity under the
measurability criteria, it is unclear what kind of
model or models are expected to meet the PE. 2

3

2

The mathematical meaning of the second sentence is unclear and difficult to parse; though the meaning of "attend to precision" is discussed in more detail in the MP descriptions, it's not 100% clear what this means in terms of performance expectations for this standard. Similarly, the mathematical meaning of the clause "carefully evaluate whether the ideas and processes observed during exploration are reasonable" is also unclear.

3

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DOK	Mathematical Rigor	
DOK Notes	Mathematical Rigor Tag(s)	Mathematical Rigor Notes

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.	Conceptual Understanding; Procedural Skill / Fluency
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The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.	Procedural Skill / Fluency; Applications
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The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.	Procedural Skill / Fluency
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Procedural Skill / Fluency

Conceptual Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

The intent of this standard seems to be at the DOK 3 level, but there are ways of meeting it that could be limited to DOK 2.

Conceptual
Understanding

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

Depending on what the observable performance expectation is for "recognize," this could potentially be DOK 3. As written we can only say for sure that it is at least DOK 2.

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.

Conceptual
Understanding;
Applications

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.

Conceptual
Understanding;
Applications

Giving the benefit of the doubt with this standards because it is poorly specified, making it difficult to assess DOK level with confidence.

Procedural Skill /
Fluency;
Conceptual
Understanding;
Applications

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.

Conceptual
Understanding;
Applications

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Procedural Skill /
Fluency;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency;
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Applications

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Procedural Skill /
Fluency

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Procedural Skill /
Fluency

Procedural Skill /
Fluency;
Conceptual
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Procedural Skill /
Fluency

Procedural Skill /
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Procedural Skill /
Fluency;
Conceptual
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Procedural Skill /
Fluency

Conceptual
Understanding

The type of task could
potentially be DOK 3
depending on the specifics,
but as written, can only
guarantee DOK 2.

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Applications

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Procedural Skill /
Fluency

Procedural Skill /
Fluency

Procedural Skill /
Fluency;
Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency;
Conceptual
Understanding;
Applications

Developmental Appropriateness		
Developmental Appropriateness Score (0-2)	Developmental Appropriateness Flag	Developmental Appropriateness Notes

2—Developmentally appropriate

2—Developmentally appropriate

2—Developmentally appropriate

2—Developmentally appropriate

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appropriate

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Integration of Appropriate Mathematical Practices		
Math Practice Integration	Math Practice Appropriateness	Identify Better Aligned MP Connection (if any and if misaligned)

2—All named practices integrated	2—All named practices appropriate	
0—No practices integrated	2—All named practices appropriate	MP4; MP7
0—No practices integrated	2—All named practices appropriate	MP4; MP5
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	MP3; MP7

2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP3; MP7
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2—All named practices integrated	2—All named practices appropriate	MP7
-------------------------------------	--------------------------------------	-----

1—Any named practices integrated	2—All named practices appropriate	MP7
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	MP5
2—All named practices integrated	2—All named practices appropriate	
0—No practices integrated	2—All named practices appropriate	MP3
2—All named practices integrated	2—All named practices appropriate	MP6; MP7
2—All named practices integrated	2—All named practices appropriate	

2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	2—All named practices appropriate	MP4; MP8
1—Any named practices integrated	1—Any named practices appropriate	MP7; MP5
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	MP7
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	MP3; MP7

2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	MP7
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	MP3; MP7
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	MP3; MP7

2—All named practices integrated	2—All named practices appropriate	MP7
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1—Any named practices integrated	2—All named practices appropriate	MP7
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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0—No practices integrated	1—Any named practices appropriate	MP7
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate	MP3
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2—All named practices integrated	2—All named practices appropriate	MP3
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Mathematical Practice Integration Notes	Notes	Memo
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	Included in memo counts.	Memo
Looks like this was a typo and that MP 4 is the practice that was intended.	Included in memo counts.	Memo
While MP 2 could be appropriate for this standard, its language does not suggest that that practice is the focus; MP 4 and 5 are the more obvious choices.	Included in memo counts.	Memo
	Included in memo counts.	Memo
	Included in memo counts.	Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

MP 3 is a reasonable match for this standard, but the language in the second sentence of standard is unclear and difficult to parse, making it difficult to tell if MP 6 is meaningfully integrated into the standard. Aspects of MP 6 *could* be aligned to this content if the standard were rewritten to address this issue.

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

MP 7 can align well with this content, but the clarity and measurability issues with the current wording make it difficult to tell whether MP 7 is currently meaningfully integrated with the content.

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Looks like this was a typo and that MP 4 is the practice that was intended.

Standard is listed twice in the standards PDF sheet.

While MP 2 could be appropriate for this standard, its language does not suggest that that practice is the focus; looks like this was a typo and that MP 5 is the practice that was intended.

Standard is listed twice in the standards PDF sheet.

Standard is listed twice in the standards PDF sheet.

Included in memo counts.

Memo

Included in memo counts.

Memo

Standard is listed twice in the standards PDF sheet.

Standard is listed twice in the standards PDF sheet.

Standard is listed twice in the standards PDF sheet.

Standard is listed twice in the standards PDF sheet. This instance is included in the memo counts.

Memo

Included in memo counts.

Memo

Standard is listed twice in the standards
PDF sheet.

Standard is listed twice in the standards
PDF sheet.

Standard is listed twice in the standards
PDF sheet.

Standard is listed twice in the standards
PDF sheet.

Standard is listed twice in the standards
PDF sheet.

Standard is listed twice in the standards
PDF sheet.

MP 3 is a reasonable match for
this standard, but the language
in the second sentence of
standard is unclear and
difficult to parse, making it
difficult to tell if MP 6 is
meaningfully integrated into the
standard. Aspects of MP 6 *could*
be aligned to this content if
the standard were rewritten to
address this issue.

Standard is listed twice in the standards
PDF sheet.

Included in memo counts.

Memo

Code CS3.F.16 is also used to code this
standard text.

This instance is included in the memo
counts.

Memo

Code CS3.F.17 is also used to code this
same standard text. This instance includes
MP3 (which is appropriate), but the other
instance does not include this code.

MP 3 is appropriate. Modeling is
not addressed in the language or
content of this standard.

Code CS3.F.16 is listed twice in the
standards PDF and contains different
standard text for each instance.
This instance is included in the memo
counts.

Memo

Code CS3.F.17 is listed twice in the
standards PDF and contains different
standards text in each instance.
This instance is included in the memo
counts.

Memo

Standard is listed twice in the standards
PDF sheet.

Standard is listed twice in the standards
PDF sheet.

Included in memo counts.

Memo

Part/Pathway

Math for All

Math for All

Math for All

Math for All

Math for All

Math for All

Math for All

Math for All

Math for All

Math for All

Math for All

Math for All

Math for All

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Domain	Standard ID (int)	Standard ID (AGA)	AGA Course
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Algebra (A)	S3. A. 1	A2. A. 1	A2
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Algebra (A)	S3. A. 2	A2. A. 2	A2
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Algebra (A)	S3. A. 3	A2. A. 3	A2
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Algebra (A)	S3. A. 4	A2. A. 4	A2
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Functions (F)	S3. F. 1	A2. F. 1	A2
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Functions (F)	S3. F. 2	A2. F. 2	A2
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Functions (F)	S3. F. 3	A2. F. 3	A2
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Functions (F)	S3. F. 4	A2. F. 4	A2
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Functions (F)	S3. F. 5	A2. F. 5	A2
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Functions (F)	S3. F. 6	A2. F. 6	A2
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Functions (F)	S3. F. 7	A2. F. 7	A2
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Functions (F)	S3. F. 8	A2. F. 8	A2
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Data Science (D)	S3. D. 1	A2. D. 1	A2
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Data Science (D)	S3. D. 2	A2. D. 2	A2
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Data Science (D)	S3. D. 3	A2. D. 3	A2
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Data Science (D)	S3. D. 4	A2. D. 4	A2
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Data Science (D)	S3. D. 5	A2. D. 5	A2
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Data Science (D)	S3. D. 6	A2. D. 6	A2
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Data Science (D)	S3. D. 7	A2. D. 7	A2
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Data Science (D)	S3. D. 8	A2. D. 8	A2
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Data Science (D)	DS3. D. 9	DA2. D. 9	A2DS
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Data Science (D)	DS3. D. 10	DA2. D. 10	A2DS
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Data Science (D)	DS3. D. 11	DA2. 11	A2DS
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Data Science (D)	DS3. D. 12	DA2. 12	A2DS
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Data Science (D)	DS3. D. 13	DA2. 13	A2DS
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Data Science (D)	DS3. D. 14	DA2. 14	A2DS
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Data Science (D)	DS3. D. 15	DA2. 15	A2DS
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Data Science (D)	DS3. D. 16	DA2. 16	A2DS
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Data Science (D)	DS3. D. 17	DA2. 17	A2DS
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Data Science (D)	DS3. D. 18	DA2. 18	A2DS
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Data Science (D)	DS3. D. 19	DA2. 19	A2DS
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Data Science (D)	DS3. D. 20	DA2. 20	A2DS
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Standard Text	Measurability Score (0–2)	Measurability Issue Flag
<i>Interpret</i> polynomial expressions given in factored form or standard form that represent a quantity in terms of a context. <i>Represent</i> polynomial expressions by using <i>technological tools</i> to produce equivalent forms (standard or factored) that reveal different properties, and <i>interpret one or more of their parts as a single entity</i>. (MP 2, 5, 7) Create equations and inequalities in one variable to <i>model a context</i> and use them to solve problems. Include equations arising from linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, square root and cube root functions (MP 3) For exponential models, express as a logarithm the solution to $f(t)=ab^{ct}=d$ where a, c, and d are numbers, and the base b is 2 or 10; evaluate the logarithm using <i>technological tools</i>. (MP 2) Solve an equation of the form $f(x)=c$ for a simple function f that has an inverse. <i>Use the attributes of inverse relationships</i> to write inverse expressions. Include linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, logarithmic, square root, and cube root functions. (MP7) Understand and interpret the features of polynomial, radical or logarithmic functions represented graphically using interval notation and inequalities by <i>applying and removing context</i>. Focus on these key features: domain, range, intervals of increase and/or decrease, location of absolute maximum and/or absolute minimum, intercepts and end behavior. <i>Build graphic models</i> that satisfy given key features. (MP 2, 4)	2—Measurable & well specified 2—Measurable & well specified 2—Measurable & well specified 2—Measurable & well specified 1—Partially measurable / well specified	Non-observable verb; Poorly specified

Build and use models of periodic phenomena with sine and cosine functions that connect real world contexts with amplitude, frequency, and midline. *Use structures and patterns* to support understanding of a domain extended beyond

0 to 90 degrees, or 0 to $\pi / 2$ radians.
(MP 4, 7)

0—Not measurable or poorly specified

Multiple expectations; Non-observable verb; Poorly specified

Understand and interpret key features (period, midline and amplitude) of sine and cosine functions represented graphically. *Build graphic models* that satisfy the given key features. (MP 4)

1—Partially measurable / well specified

Non-observable verb

Build graphical representations that show key features of polynomial, square root, cube root, exponential, logarithmic, and trigonometric (sine and cosine) functions expressed symbolically. *Select and use appropriate tools* to graph, by hand for simple cases, and using technology for more complicated cases. (MP 4, 5)

2—Measurable & well specified

Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(x+k)$ by exploring specific values of k for polynomial, square root, cube root, exponential, logarithmic, and trigonometric functions in and out of context. *Attend to precision* of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are *reasonable*. (MP 3, 6)

1—Partially measurable / well specified

Multiple expectations; Poorly specified

Use the attributes of inverse relationships to build models (tables, graphs, verbal descriptions and equations) for the inverses of linear, exponential, and quadratic functions. (MP 4, 7)

2—Measurable & well specified

Determine which function type (polynomial, square root, cubic root, exponential, or trigonometric) best models a given real world context. (MP 4)

2—Measurable & well specified

Justify that a quantity increasing exponentially eventually exceeds a quantity increasing linearly or quadratically, or (more generally) as a polynomial function. (MP 3)

2—Measurable & well specified

<i>Describe and represent structures and patterns</i> of data on two categorical variables. <i>Attend to precision and reasonableness</i> when summarizing categorical data in two-way frequency models, and <i>construct, justify, and communicate clear and reasonable arguments</i> about possible associations and trends in the data. (MP 3, 6, 7)	1—Partially measurable / well specified	Poorly specified
<i>Build and use probability models</i> including organized lists, venn-diagrams, tree diagrams, and two-way tables to find or estimate probabilities of compound or conditional events. (MP 4)	2—Measurable & well specified	
<i>Use multiple representations as tools to describe and represent structure</i> to build understanding of the addition rule, $P(A \cup B) = P(A) + P(B) - P(A \cap B)$. Understand the conditional probability of A given B as $P(A \cap B)/P(B)$. Interpret independence of A and B as saying that the conditional probability of B given A is the same as the probability of B. (MP 7)	1—Partially measurable / well specified	Multiple expectations; Non-observable verb
Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. <i>Select and use physical and/or tech tools</i> to estimate areas under the normal curve. (MP 5)	1—Partially measurable / well specified	Multiple expectations; Non-observable verb
<i>Formulate statistical investigative questions</i> that are either summary-based or comparative for surveys, observational studies, or experiments using primary and/or secondary data. <i>Select appropriate statistical tools</i> to develop a plan for data collection and analysis to address these questions. (MP 1, 5)	2—Measurable & well specified	

Select appropriate statistical tools to implement a data collection plan for primary data related to an investigative question. When using secondary data, assess its validity and relevance to answering the question. *Construct an argument* justifying the chosen data collection method (survey, observational study or experiment). Understand and apply best practices for designing sample surveys, experiments, and observational studies. (MP 3, 5)

1—Partially
measurable / well
specified

Multiple
expectations; Non-
observable verb

Attend to precision and reasonableness when summarizing and organizing collected data to answer an investigative question using tables, graphs, and numerical summary statistics. *Use models* from sample data to estimate population means or proportions. Employ simulation models for random sampling to determine approximate sampling distributions and compute p-values from those distributions. (MP 4, 6)

1—Partially
measurable / well
specified

Poorly specified

Use statistical evidence from the analyses to *evaluate results* and answer questions. Identify ways to refine investigative questions, data collection, visualization, or analysis. *Justify* outcomes or estimates of population characteristics, considering their plausibility compared to chance variation, in a variety of formats (verbal, written, visual). Communicate the interpretation of simulated p-values and determine statistical significance. (MP 3, 8)

1—Partially
measurable / well
specified

Multiple
expectations

Represent categorical and quantitative information in organized tables suitable for analysis. *Attend to precision* in data processing by filtering through logical statements, and transforming data with a detailed set of ordered tasks that are repeatable by others or a computer. (MP 6, 7)

1—Partially
measurable / well
specified

Poorly specified

Describe univariate displays of large sets of data using technology. *Ask targeted questions* about the displays, including shape (skewed, symmetric), center, variability, and unusual outcomes. (MP 1)

1—Partially
measurable / well
specified

Poorly specified

Describe and represent relationships between two quantitative variables. Create visual representations with or without technology, addressing strength, form, direction and unusual observations in the data. (MP 7)

2—Measurable & well
specified

Build and use models to describe relationships between two continuous variables using linear regression. Explain which variable(s) should be used for prediction. *Construct reasonable arguments* for appropriate and inappropriate use of the model for practical decision making. (MP 3, 4)

2—Measurable & well
specified

Describe the relationship between the distribution of a population, the distribution of a sample, and a sampling distribution (e.g., the distribution of sample means). *Describe* sampling distributions through summary statistics, including the mean and the standard deviation. (MP 1)

2—Measurable & well
specified

Use the central limit theorem to *represent* the distribution of sample means of large data sets as a normal distribution. *Assess conjectures* about the population means based on the sample averages through probability calculations from the normal distribution. (MP 7, 8)

2—Measurable & well
specified

Use statistical tools to validate the appropriateness and usefulness of a model, including visual and numeric assessments of model fit. Use hypothesis testing and simulation to *develop and assess* conjectures about the model. (MP 5, 8)

1—Partially
measurable / well
specified

Multiple
expectations

Evaluate results reached from data analysis. Identify ways to refine investigative questions, data collection, visualization, or analysis. *Justify and communicate clear and reasonable* conclusions. (MP 3)

0—Not measurable or
poorly specified

Too broad; Too
vague

Determine the appropriate scope of generalization based on the method of sampling. *Contextualize* the implications through data storytelling. (MP 2)

1—Partially
measurable / well
specified

Poorly specified;
Too broad

Understand the role of random assignment in experiments and the implications for cause-and-effect interpretations. *Justify* conclusions. (MP 3)

1—Partially
measurable / well
specified

Non-observable verb

Construct reasonable arguments regarding the issues of data bias and confounding variables in observational studies and their implications for interpretation. (MP 3)

1—Partially
measurable / well
specified

Too broad; Poorly
specified

Use precision in practices for handling large sets of data that enhance reproducibility and ensure ethical use, including descriptions of alterations, and understand when data may contain sensitive information. (MP 6)

0—Not measurable or poorly specified

Too vague; Too broad; Non-observable verb

Measureability	Instructional
Measurability Notes	Instructional Focus Tag

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

Widely applicable
prerequisite

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

"Understand and interpret the features of ... functions ... **by applying and removing context**" is also poorly specified. It is not clear what this means in terms of observable behavior an assessor should be looking for.

This standard includes two distinct PEs that are unlikely to be assessable with a single performance. ("Build and use models of periodic phenomena...." and "Use structures and patterns to support...")

Because "model" is defined so broadly in MP4 (essentially used as a synonym for "representation"), it's not clear what type of model or models are expected.

Appropriate
supporting work

"Support understanding" is unobservable; it is not clear what specific behavior an educator or assessor would be looking for to determine proficiency.

"Understand" is a non-observable verb. Consider instead simply removing the word, since it seems that correctly interpreting the features of functions is the observable behavior that indicates understanding.

Widely applicable
prerequisite

Widely applicable
prerequisite

"Attend to precision of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are reasonable" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

Appropriate
supporting work

Widely applicable
prerequisite

Appropriate
supporting work

"Attend to precision and reasonableness when summarizing categorical data in two-way frequency models" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate
supporting work

Appropriate
supporting work

"Understand" is a non-observable verb. If the goal is to be able to know/memorize and restate the formula, then use that language: "Know that the conditional probability is..." If the goal is to be able to use the formula to solve problems, then use that language: "Use the formula to find the conditional probability...." If it is conceptual understanding, use an observable verb to describe the behavior an assessor would look for. (For example, "Explain why the conditional probability of A given B..." "Construct an argument to justify why the conditional probability of A given B..." etc.) The first two PEs are closely related and it makes sense to have them in the same standard. The third is a separate skill.

Appropriate
supporting work

"Recognize" is a non-observable verb, so it is not clear what observable behavior an educator or assessor would be looking for. Consider language such as "Identify data sets for which such a procedure is not appropriate."

Appropriate
supporting work

Appropriate
supporting work

"Understand" is a non-observable verb. Consider either removing it or using language like "Describe and apply best practices..." or "Explain and apply best practices..."

Widely applicable prerequisite

"Attend to precision and reasonableness when summarizing and organizing collected data" is poorly specified as a performance expectation; it's not clear what specific behavior a teacher or assessor would be looking for.

Appropriate supporting work

- This standard contains four distinct PEs:
- * Use statistical evidence from the analyses to evaluate results and answer questions.
 - * Identify ways to refine investigative questions, data collection, visualization, or analysis.
 - * Justify outcomes or estimates of population characteristics, considering their plausibility compared to chance variation, in a variety of formats (verbal, written, visual).
 - * Communicate the interpretation of simulated p-values and determine statistical significance.
- Appropriate supporting work

The last two are closely related enough that they could both be evaluated by a single task, but the first two are distinctly different. A student could be proficient in the first, second, or third and fourth PEs without being proficient in the others, making this a difficult standard to assess with a single performance.

The clause "Attend to precision in data processing by filtering through logical statements..." is unclear, making it difficult to understand what the performance expectations are for this standard. The second sentence/PE is also poorly specified.

Appropriate
supporting work

"Ask targeted questions" is poorly specified and high inference; assessors must use their own judgment to determine whether the questions students are asking are 'targeted' or not.

Appropriate
supporting work

Appropriate
supporting work

Widely applicable
prerequisite

Widely applicable
prerequisite

Appropriate
supporting work

This standard includes two distinct PEs:

- * Use statistical tools to validate the appropriateness and usefulness of a model, including visual and numeric assessments of model fit.
- * Use hypothesis testing and simulation to develop and assess conjectures about the model.

The first one is an example of the second, which makes it challenging to assess whether a student has met the full standard. A way to address this issue could be to reword it as " Use hypothesis testing and simulation to develop and assess conjectures about the model; for example, using statistical tools to validate the appropriateness and usefulness of a model, including visual and numeric assessments of model fit."

Appropriate
supporting work

This standard is so broad that it's not clear what the performance expectation(s) would be. "Evaluate results reached from data analysis" could mean a wide range of things; "Identify ways to refine investigative questions" etc. leaves to the discretion of the assessor what those ways should be. Given the broadness and vagueness of the first two sentences, it is also unclear how the third sentence would be measured & assessed.

Appropriate
supporting work

This standard could refer to a wide range of statistical techniques and so would be difficult to assess with a single performance. 'Appropriate' is also poorly specified; since the standard is so broad, assessors will need to use their own judgment regarding whether the scope of generalization is appropriate or not.

Appropriate
supporting work

"Understanding the role of random assignment...and implications" isn't something that can be measured.

Appropriate
supporting work

Especially because data science standards are less common and less familiar to many educators, the lack of specificity in this standard may make it difficult for materials designers, teachers, and assessors to understand specifically what is being asked of students. Which issues of data bias? What implications?

Appropriate
supporting work

"Use precision in practices for handling large sets of data that enhance reproducibility and ensure ethical use" is broad and vague. It is not clear what practices are intended, so unclear how this PE would be assessed.

Appropriate
supporting work

"Understand when data may contain sensitive information" is both non-observable, and also vague; the standard doesn't specify what sensitive information is or how students would determine this.

Instructional Focus		Clarity
Instructional Focus Notes	Clarity & Accessibility Score (0-2)	Clarity & Accessibility Issue Flag

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

2—Clear and accessible

1—Partially clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE
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1—Partially clear and accessible	Vague/ambiguous language
--	--------------------------

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Insufficient guidance to understand PE
--	---

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Unclear grammar/typo(s)
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1—Partially
clear and
accessible Unclear grammar/typo(s)

2—Clear and
accessible

1—Partially
clear and
accessible Unclear grammar/typo(s)

2—Clear and
accessible

2—Clear and
accessible

1—Partially
clear and
accessible

Insufficient guidance to
understand PE

1—Partially
clear and
accessible

Other; Unclear
grammar/typo(s);
Mathematical
error/imprecise usage of
mathematical term(s)

2—Clear and
accessible



1—Partially clear and accessible	Insufficient guidance to understand PE; Other
--	--

1—Partially clear and accessible	Vague/ambiguous language
--	--------------------------

2—Clear and
accessible

1—Partially clear and accessible	Unclear grammar/typo(s)
--	-------------------------

2—Clear and
accessible

2—Clear and
accessible

1—Partially clear and accessible	Other
--	-------

0—Not clear and accessible	Insufficient guidance to understand PE
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1—Partially clear and accessible	Jargon; Vague/ambiguous language; Insufficient guidance to understand PE
--	---

2—Clear and accessible	
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1—Partially clear and accessible	Insufficient guidance to understand PE
--	---

0—Not clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE
-------------------------------	---

ty & Accessibility	
Clarity & Accessibility Notes	DOK Level (1-4)

2

2

2

2

"Understand and interpret the features of ... functions ... by applying and removing context" is unclear in terms of what it means, specifically, in terms of a PE for this standard.	3
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Related to the note about poor specificity under the
measurability criteria, it is unclear what kind of
model or models are expected to meet the PE.

2

3

2

The mathematical meaning of the second sentence is
unclear and difficult to parse; though the meaning of
"attend to precision" is discussed in more detail in
the MP descriptions, it's not 100% clear what this
means in terms of performance expectations for this
standard. Similarly, the mathematical meaning of the
clause "carefully evaluate whether the ideas and
processes observed during exploration are reasonable"
is also unclear.

3

2

2

Current grammar is unclear; consider "Justify **the fact**
that a quantity increasing exponentially...."

2

There is something unclear and difficult to parse about the sentence "Describe and represent structures and patterns of data on two categorical variables." It is clear what it would mean to "Describe and represent patterns of data," but it's less clear what it would mean to "Describe and represent structures on two categorical variables." (Or is it, "Describe and represent structures of data on two categorical variables"? Which is equally unclear.)

3

2

The clause "Use multiple representations as tools to describe and represent structure to build understanding of the addition rule" (particularly the two infinitive phrases back to back) is ungainly and difficult for the reader to parse.

3

2

3

"Understand and apply best practices for designing sample surveys, experiments, and observational studies" needs additional guidance regarding what the best practices are in order for educators and assessors to be able to determine whether a student has reached proficiency.

3

"Attend to precision and reasonableness when summarizing and organizing collected data to answer an investigative question using tables, graphs, and numerical summary statistics" is ungainly and difficult for the reader to parse.

Looking at the second sentence, the original wording from CCSS is: "Use data from a sample survey to estimate a population mean or proportion." The revised language ("Use models from sample data") is mathematically imprecise; one can use sample data to **create a model** which can then be used to estimate a population mean, but the current wording skips over this step, implying that the sample data *is itself the model*, which is inaccurate.

3

3



See note under measurability -- the issues with the standard impact both measurability and clarity in similar ways. The clause "Attend to precision in data processing by filtering through logical statements..." may be confusing or unclear for some readers; though the meaning of "attend to precision" is discussed in more detail in the MP descriptions, it is not completely clear what this means in terms of performance expectations for this standard. 2

The second sentence/PE is also ungainly and difficult for the reader to parse.

"Targeted" is high inference, requiring the educator or assessor to use their own judgment about what it means and whether a student has met the standard. 2

2

There is something unclear about the construction of of the third sentence: "Construct reasonable arguments for appropriate and inappropriate use of the model for practical decision making. (MP 3, 4)." What would it mean to construct a reasonable argument for the inappropriate use of the model? 3

3

2

The clarity issue here is related to the measurability
issue described under that criteria. 3

Similar to the issue described under measurability, it
is difficult to understand what the PEs for this
standard actually are. 3

The sentence "Contextualize the implications through
data storytelling. (MP 2)" is unclear. An assessor does
not have enough information about the performance
expectation to determine whether a student is meeting
the standard. 3

2

See the note under measurability -- the issues with the
standard impact both measurability and clarity in
similar ways. 3

See note under measurability -- the issues with the standard impact both measurability and clarity in similar ways. It is currently not clear what practices are being referred to, or what it means to "understand when data may contain sensitive information." Though the meaning of "attend to precision" is discussed in more detail in the MP descriptions, it is not completely clear what this means in terms of performance expectations for this standard.

3

DOK	Mathematical Rigor	
DOK Notes	Mathematical Rigor Tag(s)	Mathematical Rigor Notes

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.	Conceptual Understanding; Procedural Skill / Fluency
---	---

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.	Procedural Skill / Fluency; Applications
---	---

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.	Procedural Skill / Fluency
---	----------------------------

Procedural Skill / Fluency

Conceptual Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2. The intent of this standard seems to be at the DOK 3 level, but there are ways of meeting it that could be limited to DOK 2.

Conceptual
Understanding;
Applications

Conceptual
Understanding

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Applications

Procedural Skill /
Fluency;
Conceptual
Understanding

Depending on what the observable performance expectation is for "recognize," this could potentially be DOK 3. As written we can only say for sure that it is at least DOK 2.

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.

Conceptual
Understanding;
Applications

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.	Conceptual Understanding; Applications
---	--

Giving the benefit of the doubt with this standards because it is poorly specified, making it difficult to assess DOK level with confidence.	Procedural Skill / Fluency; Conceptual Understanding; Applications
--	--

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.	Conceptual Understanding; Applications
---	--



Because of the specificity and clarity issues in this standard, it is difficult to know for sure what level of DOK is represented. The minimum DOK level is likely 2.

Applications

Conceptual
Understanding;
Applications

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Applications

The type of task could potentially be DOK 3 depending on the specifics, but as written, can only guarantee DOK 2.

Procedural Skill /
Fluency;
Conceptual
Understanding

Procedural Skill /
Fluency;
Conceptual
Understanding

The type of task could
potentially be DOK 4 depending
on the specifics, but as
written, can only guarantee
DOK 3.

Conceptual
Understanding;
Applications

Conceptual
Understanding;
Applications

Conceptual
Understanding

Conceptual
Understanding;
Applications

The type of task could potentially be DOK 4 depending on the specifics, but as written, can only guarantee DOK 3.

Applications

Developmental Appropriateness		
Developmental Appropriateness Score (0-2)	Developmental Appropriateness Flag	Developmental Appropriateness Notes

2—Developmentally appropriate

2—Developmentally appropriate

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Integration of Appropriate Mathematical Practices		
Math Practice Integration	Math Practice Appropriateness	Identify Better Aligned MP Connection (if any and if misaligned)

2—All named practices integrated	2—All named practices appropriate	
0—No practices integrated	2—All named practices appropriate	MP4; MP7
0—No practices integrated	2—All named practices appropriate	MP4; MP5
2—All named practices integrated	2—All named practices appropriate	
2—All named practices integrated	2—All named practices appropriate	MP3; MP7

2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

2—All named practices integrated	2—All named practices appropriate	MP3; MP7
-------------------------------------	--------------------------------------	----------

2—All named practices integrated	2—All named practices appropriate	MP7
-------------------------------------	--------------------------------------	-----

1—Any named practices integrated	2—All named practices appropriate	MP7
-------------------------------------	--------------------------------------	-----

2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

2—All named practices integrated	2—All named practices appropriate	MP5
-------------------------------------	--------------------------------------	-----

2—All named practices integrated	2—All named practices appropriate	
-------------------------------------	--------------------------------------	--

0—No practices integrated	2—All named practices appropriate	MP3
------------------------------	--------------------------------------	-----

2—All named practices integrated	2—All named practices appropriate	MP6; MP7
-------------------------------------	--------------------------------------	----------

2—All named practices integrated	2—All named practices appropriate	
-------------------------------------	--------------------------------------	--

2—All named practices integrated 2—All named practices appropriate

2—All named practices integrated 2—All named practices appropriate

2—All named practices integrated 2—All named practices appropriate



0—No practices
integrated

0—No practices
appropriate

2—All named practices
integrated

2—All named
practices appropriate

MP5

2—All named practices
integrated

2—All named
practices appropriate

MP4

2—All named practices
integrated

2—All named
practices appropriate

2—All named practices
integrated

2—All named
practices appropriate

MP6

2—All named practices
integrated

2—All named
practices appropriate

2—All named practices integrated	2—All named practices appropriate
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2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

0—No practices integrated	0—No practices appropriate
------------------------------	-------------------------------

2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

0—No practices
integrated

0—No practices
appropriate

Mathematical Practice Integration Notes	Notes	Memo
--	-------	------

	Included in memo counts.	Memo
Looks like this was a typo and that MP 4 is the practice that was intended.	Included in memo counts.	Memo
While MP 2 could be appropriate for this standard, its language does not suggest that that practice is the focus; MP 4 and 5 are the more obvious choices.	Included in memo counts.	Memo
	Included in memo counts.	Memo
	Included in memo counts.	Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

MP 3 is a reasonable match for this standard, but the language in the second sentence of standard is unclear and difficult to parse, making it difficult to tell if MP 6 is meaningfully integrated into the standard. Aspects of MP 6 *could* be aligned to this content if the standard were rewritten to address this issue.

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

MP 7 can align well with this content, but the clarity and measurability issues with the current wording make it difficult to tell whether MP 7 is currently meaningfully integrated with the content.

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts. Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Language in the standard does not reflect MP7.

Because of the clarity issues with the second sentence, it is not possible to determine whether MP 6 is meaningfully integrated or in alignment with the content.

Included in memo counts.

Memo

The phrase "using technology" clearly connects this standard to MP5.

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.

Memo

Included in memo counts.	Memo
--------------------------	------

Included in memo counts.	Memo
--------------------------	------

It is difficult to say whether MP 2 is appropriately integrated into the standard, because as noted earlier, "Contextualize the implications through data storytelling" is an unclear PE.

For that reason, it is also difficult to determine what MP, if any, would be a better match.

Included in memo counts.	Memo
--------------------------	------

Included in memo counts.	Memo
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Included in memo counts.	Memo
--------------------------	------

It is possible that MP6 could be
a good match for this content,
but the clarity and
measurability issues with the
current wording make it
difficult to tell for sure
whether it is currently
meaningfully integrated

Included in memo counts.

Memo

Part/Pathway

Math for All

Math for All

Math for All

Math for All

Math for All

Math for All

Math for All

Math for All

Math for All

Math for All

Math for All

Math for All

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Data Science

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Data Science

Domain	Standard ID (int)	Standard ID (AGA)	AGA Course?
Functions (F)	S1.F.6	Could not find in AGA doc	Could not find in AGA doc
Functions (F)	S1.F.7	Could not find in AGA doc	Could not find in AGA doc
Functions (F)	S2.F.1	Could not find in AGA doc	Could not find in AGA doc
Number System	S2.NS.5	Could not find in AGA doc	Could not find in AGA doc
Number System	S2.NS.6	Could not find in AGA doc	Could not find in AGA doc

Number System

S2.NS.7

Could not
find in AGA
doc

Could not
find in AGA
doc

Standard Text	Measurability Score (0-2)	Measurability Issue Flag
<i>Build representations</i> that show key features of linear and exponential functions expressed symbolically. <i>Select and use appropriate tools</i> to model with and without technology. (MP 4, 5)	1—Partially measurable / well specified	Too vague
Compare and contrast the properties of linear and exponential functions (represented in different ways). <i>Formulate and ask questions</i> to highlight the similarities and differences between the functions. (MP 1)	2—Measurable & well specified	
Understand and interpret the features of a function represented graphically, numerically and symbolically using interval notation and inequalities by <i>applying and removing context</i> . Focus on these key features: domain, range, intervals of increase and/or decrease, location of absolute maximum and/or absolute minimum, and intercepts. <i>Build graphic models</i> that satisfy given key features. (MP 2, 4)	1—Partially measurable / well specified	Non-observable verb
Find the conjugate of a complex number; use conjugates to find moduli and quotients of complex numbers. <i>Represent</i> the conjugate and moduli on the complex plane. (MP 7)	2—Measurable & well specified	
<i>Represent</i> complex numbers on the complex plane in rectangular form, and <i>explain</i> why the rectangular form of a given complex number represents the same number. (MP 3, 4)	2—Measurable & well specified	

Represent addition, subtraction, and multiplication geometrically on the complex plane; use properties of this representation for computation. (MP 4)

2—Measurable & well specified

lity	Instructional Focus		
Measurability Notes	Instructional Focus Tag	Instructional Focus Notes	Clarity & Accessibility Score (0-2)

The measurability issues here are related to the clarity of the language.

Widely applicable prerequisite

0—Not clear and accessible

Widely applicable prerequisite

2—Clear and accessible

"Understand" is a non-observable verb; the standard also does not specify what a student should understand about the features of a function.

Widely applicable prerequisite

1—Partially clear and accessible

The 2 expectations are closely tied and can be evaluated via one performance.

Appropriate supporting work

2—Clear and accessible

Appropriate supporting work

2—Clear and accessible

Appropriate
supporting work

2—Clear and
accessible

Clarity & Accessibility		DOK	
Clarity & Accessibility Issue Flag	Clarity & Accessibility Notes	DOK Level (1-4)	DOK Notes
Vague/ambiguous language; Insufficient guidance to understand PE	The first PE is unnecessarily wordy, making the meaning both ambiguous and unclear. What is the desired PE? Is it to build symbolic representations of linear and exponential functions (e.g, equations)? Or is it to generate OTHER representations of functions that have been presented symbolically? "Select and use appropriate tools to model with and without technology" is also vague/ambiguous, making the PE unclear.	2	
		2	
Insufficient guidance to understand PE	Related to the measurability issues, it is difficult to understand the PEs because the standard is poorly specified.	2	
		2	
		3	

Mathematical Rigor		Developmental Appropriatenes	
Mathematical Rigor Tag(s)	Mathematical Rigor Notes	Developmental Appropriateness Score (0-2)	Developmental Appropriateness Flag

Procedural Skill /
Fluency;
Conceptual
Understanding

2—Developmentally
appropriate

Conceptual
Understanding

2—Developmentally
appropriate

Conceptual
Understanding

2—Developmentally
appropriate

Conceptual
Understanding;
Procedural Skill /
Fluency

2—Developmentally
appropriate

Procedural Skill /
Fluency;
Conceptual
Understanding

2—Developmentally
appropriate

Procedural Skill /
Fluency;
Conceptual
Understanding

2—Developmentally
appropriate

ss	Integration	
Developmental Appropriateness Notes	Math Practice Integration	Math Practice Appropriateness

2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

For all of these,
depending on when they
land in the course, this
is typically covered in
Alg2/Math 3 or Trig in
most states.

2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

For all of these,
depending on when they
land in the course, this
is typically covered in
Alg2/Math 3 or Trig in
most states.

2—All named practices integrated	2—All named practices appropriate
-------------------------------------	--------------------------------------

For all of these,
 depending on when they
 land in the course, this 2—All named practices 2—All named
 is typically covered in integrated practices appropriate
 Alg2/Math 3 or Trig in
 most states.

h of Appropriate Mathematical Practices

Identify Better Aligned
MP Connection (if any and
if misaligned)

Mathematical Practice Integration Notes

Rubrics for Utah Standards Review – Deliverable 2

Category	Criteria & Description	Score	Indicators: The standard...
Clarity & Focus	Measurability & Specificity: Assess whether the standards are written in a way that allows for the development of clear assessment items	2—Measurable & well specified	The standard... - Clearly indicates what is expected of students. - Includes specific, low-inference performance expectations. - Includes an appropriate level of detail - Is not too broad or overly prescriptive.
		1—Partially measurable / well specified	- Aspects of the standard clearly indicate what is expected of students and include specific, low-inference performance expectations, while other aspects do not. - Aspects of the standard may be too broad or lacking in sufficient detail, or may be overly prescriptive.
		0—Not measurable or poorly specified	- It is not clear from the standard what is expected of students. - Performance expectations are not included or may be high inference. - The standard may be too broad or overly prescriptive.
		If a score of 1 or 0 is assigned, then the primary reason(s) measurability is reduced is flagged. One or more of the following flags will be assigned: Too vague; Too broad; Multiple expectations; Non-observable verb; Lacks performance expectation; Overly prescriptive; Poorly Specified; Other.	
	Instructional Focus (K-8): Identify whether the standard addresses the "major work" of the grade; supporting work; additional work; or extraneous content.	Major work	The standard addresses the major work of the grade as defined by most US states.
		Supporting work	The standard addresses the supporting work of the grade as defined by most US states.
		Additional work	The standard addresses additional work of the grade as defined by most US states.
		Extraneous work	The standard does not address major, supporting, or additional work as defined by most US states.

	Instructional Focus (High School): Identify whether the standard addresses ‘widely applicable prerequisite; appropriate supporting work; or extraneous work for the grade level/course.	Widely applicable prerequisite	Standards that fall under the clusters, domains & conceptual categories considered widely applicable prerequisites for high school as defined by most US states.
		Appropriate supporting work	The standard addresses something that is not tagged as widely applicable prerequisites as defined by most US states, but seems appropriate for the course / grade level.
		Extraneous or inappropriate work	The standard either does not appear for most US states’ high school standards in some form or seems inappropriate for the year/course.
	Clarity & Accessibility: Ensure the terminology is simple, concise, mathematically precise, and still accessible to educators and parents.	2—Clear and accessible	The standard... • Is understandable to key users such as teachers and curriculum directors • Is free of mathematical errors and imprecisions • Includes sufficient guidance to understand the PE • Uses language that most people can understand and is, as much as possible without sacrificing precision or rigor, free from jargon; any technical terms are appropriate for the grade level/course.
		1—Partially clear and accessible	• <u>Some aspects</u> of the standard are understandable to users, while other aspects could be confusing or ambiguous. • Mathematical errors or imprecisions may make aspects of the standard confusing. • <u>Some aspects</u> may need additional guidance to understand the PE. • <u>Some aspects</u> of the standard may include unnecessary jargon or technical language that is not appropriate for the course/grade level.
		0—Not clear and accessible	• Is <u>likely to be confusing</u> to key users like teachers and curriculum directors • Mathematical errors or imprecisions may make the standard confusing. • May lack sufficient guidance regarding the relevant content knowledge and math practices • May include unnecessary jargon that makes it difficult for the general public to understand.
		If a score of 1 or 0 is assigned, then the primary reason(s) clarity is reduced is flagged. One or more of the following flags will be assigned: Vague/ambiguous language; Jargon; Mathematical error/imprecise usage of mathematical term(s); Unclear grammar/typo(s); Insufficient guidance to understand PE; Other	

Category	Criteria & Description	Score	Indicators: The standard...
Content Alignment & Rigor	Depth of Knowledge:	DOK 1 (Recall, reproduction, rote procedures)	The performance expectation in the standard requires only recall of information (such as a fact, definition, term, or simple procedure), performing a simple algorithm , or applying a formula .
		DOK 2 (Skills/Concepts)	The performance expectation in the standard requires the student to exercise judgment as to how to appropriately apply conceptual understanding. The task is still routine in nature, with a clear solution path.
		DOK 3 (Strategic Reasoning/ Evidence/ Justification)	The performance expectation in the standard is nonroutine , without a clear solution path; the student must engage in strategic thinking in order to explain, justify, evaluate, analyze, and so on.
		DOK 4 (Extended investigation/ Synthesis over time)	The performance expectation in the standard requires drawing on mathematical knowledge and understanding to engage in investigation, longer-term planning , and dealing with ambiguity , often over an extended period of time.
		Not Applicable	The standard does not include a clear performance expectation, so it is not possible to give a DOK rating.
	Mathematical Rigor: Identify whether each standard addresses mathematical skills and procedures; conceptual understanding of a mathematical idea; and/ or applications of a mathematical skill/procedure.	Procedural Skill / Fluency	The standard requires demonstrating a mathematical skill or procedure ; may or may not also require conceptual understanding or application.
		Conceptual Understanding	The standard requires demonstrating mathematical understanding that goes beyond demonstrating a skill or procedure ; while verbs are not 100% reliable for determining whether conceptual understanding is involved, such standards often include verbs like explain, justify, evaluate.
		Applications	The standard requires applying conceptual understanding and/or procedural skills to a real-world situation or context .
		None	The standard doesn't address procedural skills, conceptual understanding, or applications.

	Developmental Appropriateness: Ensure that each standard is developmentally appropriate for the grade level/course.	2—Developmentally appropriate	- The mathematical skill, idea, or application addressed by the standard is developmentally appropriate for the grade level/course. - The level of depth and complexity in which the performance expectations require students to engage with the content is developmentally appropriate for the grade level/course.
		1—Partially developmentally appropriate	Aspects of the mathematical skill, idea, or application addressed by the standard is developmentally appropriate for the grade level/course, while other aspects are not. - The level of depth and complexity in which parts of the performance expectations require students to engage with the content is developmentally appropriate for the grade level/course, while others are not.
		0—Not developmentally appropriate	- The mathematical skill, idea, or application addressed by the standard is not developmentally appropriate for the grade level/course. - The level of depth and complexity in which the performance expectations require students to engage with the content is not developmentally appropriate for the grade level/course.
		If a score of 1 or 0 is assigned, then the primary reason(s) developmental appropriateness is reduced is flagged, and then reviewed later for progression review. One or more of the following flags will be assigned: Prerequisite missing; Too early; Too late; Repeats without growth; Abrupt jump; Other.	

Category	Criteria & Description	Score	Indicators: The standard...
Integration of Appropriate Mathematical Practices	Math Practice Integration: Determine whether or not the MP(s) named in each standard are meaningfully integrated into the standard's performance expectation(s).	2—All named practices integrated	All practices explicitly named in the standard are meaningfully integrated into the standard and aligned with its performance expectations.
		1—Any named practices integrated	At least one of the practices explicitly named in the standard is meaningfully integrated into the standard and aligned with its performance expectations, but at least one is not .
		0—No practices integrated	None of the practices explicitly named in the standard are meaningfully integrated into the standard and aligned with its performance expectations.

		For scores of 1, the practice that is not meaningfully integrated will be identified.	
	Math Practice Appropriateness/Alignment: Determine whether or not the MP(s) named in each standard are appropriate to the mathematical content of the standard.	2—All named practices appropriate	All practices explicitly named in the standard are appropriate to and aligned to the mathematical content of the standard.
		1—Any named practices appropriate	At least one of the practices explicitly named in the standard is appropriate to and aligned to the mathematical content of the standard, but at least one is not .
		0—No practices appropriate	None of the practices explicitly named in the standard are appropriate to and aligned to the mathematical content of the standard.
	Additional Math Practices: Determine whether any MP(s) not named in the standard would be better aligned with the content or performance expectations in the standard.	Identify the practice(s) or mark “none”.	

Gap Analysis and Review of the Utah Core Standards for Mathematics (UCS-M)

Final Report

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Elizabeth Dyke

July 2026

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Education*

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Executive Summary

In May 2026, WestEd contracted with the Utah State Board of Education (USBE) to conduct an independent, third-party review of the proposed draft of the Utah Core Standards for Mathematics (UCS-M). This review was intended to provide a thorough review of the UCS-M for its rigor, clarity, measurability, instructional focus, developmental appropriateness, and the integration of mathematical practices, along with a Benchmark comparison of the UCS-M with high-performing national and international frameworks and standards. This report integrates the findings across two phases of WestEd's reviews and includes recommendations and a summary of the strengths and opportunities for refinement of the draft UCS-M.

This review was completed in two complementary phases. The first phase compared the UCS-M with three benchmark systems: the Massachusetts Mathematics Curriculum Framework, the Minnesota Academic Standards in Mathematics, and the Singapore Mathematics Syllabus. These comparisons included standards-level crosswalks, domain-level analyses of content coverage, and comparisons of the Utah Mathematical Practices with the Standards for Mathematical Practices (SMPs) used by most U.S. state mathematics standards. The second phase consisted of a standards-level review in which each Utah standard was evaluated using rubrics (see Appendix-A for the rubrics used) that addressed the measurability, instructional focus, clarity and accessibility, mathematical rigor, Depth of Knowledge (DOK), developmental appropriateness, and the integration and appropriateness of the Utah Mathematical Practices. Together, these analyses provide a comprehensive evaluation of the quality of the draft UCS-M.

Overall Findings

Overall, the review found that the UCS-M provide a strong and coherent framework for mathematics teaching and learning across the PK–12 continuum. The standards demonstrate substantial alignment with nationally recognized mathematics standards while incorporating several distinctive features that reflect Utah's educational priorities. Across both phases of the review, the evidence suggests that the standards are generally well organized, instructionally focused, developmentally appropriate, and mathematically rigorous. The review did not identify evidence suggesting a need for major structural revisions to the standards. Rather, the findings point primarily toward opportunities to improve the clarity, measurability, and sequencing of selected standards.

Major Strengths

Several strengths emerged consistently across the benchmark comparisons and standards review.

- **Strong alignment with nationally recognized mathematics standards.** The UCS-M were found to be highly comparable to the Massachusetts Mathematics Curriculum Framework. While broader differences were found in comparison to the Minnesota and Singapore mathematics standards, these mostly reflected alternative approaches to sequencing and curricular emphasis rather than fundamental differences in mathematical expectations.
- **High-quality, well-balanced mathematics standards.** The standards demonstrate a strong balance of conceptual understanding, procedural skill and fluency, and application, while maintaining instructional focus consistent with high-quality mathematics standards used throughout the United States.
- **Coherent PK–12 progression.** The review found that the standards are developmentally appropriate and establish a logical PK–12 progression of mathematical learning. Cognitive demand also progresses appropriately from foundational knowledge in the early grades to increasingly sophisticated mathematical reasoning in the upper grades and high school.
- **Distinctive emphasis.** The standards include a comprehensive PK–12 Data Science progression and explicit integration of the Utah Mathematical Practices throughout the content standards, distinguishing the UCS-M from many existing state mathematics standards.

Opportunities for Refinement

While the review identified many strengths, several recurring opportunities for refinement emerged across the benchmark comparisons and standards review.

- **Clarity and measurability of selected standards.** Reviewers identified opportunities to improve the clarity, measurability, and specificity of performance expectations within a limited number of standards. Most observations related to the wording of standards rather than the underlying mathematical content.
- **Integration of the Utah Mathematical Practices.** The review found that the Utah Mathematical Practices were generally well integrated into the standards, while identifying opportunities to further clarify how they are expressed within selected content standards.
- **Developmental progression of selected standards.** Reviewers identified a small number of standards that may warrant further consideration regarding their placement or expected level of reasoning, particularly in the early grades.
- **Localized benchmark differences.** The benchmark analyses identified selected differences

in content emphasis and sequencing between the UCS-M and the benchmark standards that USBE could consider during revisions. These differences were particularly found in Geometry and Measurement, some advanced Secondary topics, and Utah's PK–12 Data Science progression.

Recommendations

Based on the evidence collected during this review, WestEd offers the following recommendations for USBE's consideration:

- **Preserve the overall structure and organization of the UCS-M.** The review found substantial alignment with nationally recognized mathematics standards and no evidence supporting major structural revisions.
- **Prioritize targeted revisions.** Targeted revisions could improve the clarity, measurability, and accessibility of selected standards while preserving their underlying mathematical intent. Review the placement of the relatively small number of standards identified through the developmental appropriateness review to determine whether adjustments to sequencing or expected reasoning would strengthen the overall progression.
- **Continue refining the integration of the Utah Mathematical Practices.** The review found opportunities to clarify the Utah Mathematical Practices while maintaining their explicit integration throughout the standards.
- **Use the attached analyst rating worksheets to inform standard-specific revisions.** These resources provide detailed reviewer comments, suggested revisions, and benchmark comparisons that complement the findings presented in this report.

Concluding Remarks

Taken together, the benchmark analyses and standards review indicate that the draft of the UCS-M provides a high-quality foundation for mathematics instruction across the PK–12 continuum. The standards are broadly aligned with nationally recognized mathematics frameworks while incorporating several distinctive features that reflect Utah's educational priorities. The opportunities for refinement identified through this review are concentrated primarily in the wording, implementation, and sequencing of selected standards rather than the overall design of the standards themselves. Consequently, this report should be viewed as supporting the continued refinement of an already strong standards framework, with the accompanying analyst worksheets and benchmark crosswalks providing detailed guidance for future revisions.

Introduction

In May 2026, WestEd was contracted by the Utah State Board of Education (USBE) to conduct an independent, third-party review of the proposed draft of the Utah Core Standards for Mathematics (UCS-M). The purpose of the review was to provide an objective evaluation of the standards using multiple sources of evidence, including comparisons with nationally and internationally recognized benchmark systems and a detailed standards-level review of the quality and characteristics of the Utah standards themselves.

High-quality mathematics standards serve as the foundation for curriculum, instruction, assessment, and professional learning. Consequently, the review was designed to examine not only whether the Utah standards address the breadth and depth of mathematical content reflected in high-performing benchmark systems but also whether the standards are written in a manner that supports clear interpretation, high-quality instruction, coherent learning progressions, and valid assessment. Together, these complementary analyses provide a comprehensive evaluation of the UCS-M and identify areas of alignment, distinction, and opportunities for refinement.

This report presents the results of WestEd's independent review of the UCS-M and synthesizes findings from the two phases of the review integrating evidence across all analyses. Unlike the interim memos (i.e., the Gap-Analysis Memo and the Standards-Quality-Review Memo) prepared during the course of the project, which separately summarized individual components of the review, this report presents an integrated evaluation of the Utah standards, highlighting overarching patterns, recurring themes, and evidence-based considerations to support USBE's review of the draft standards.

Purpose

The purpose of this report is to provide a comprehensive evaluation of the proposed UCS-M. Specifically, the report examines

- a) the extent to which the Utah standards align with nationally and internationally recognized mathematics standards;
- b) the overall quality of the standards with respect to measurability, clarity, instructional focus, rigor, developmental appropriateness, and the integration of the Utah Mathematical Practices; and
- c) the overarching strengths, notable differences, and opportunities for refinement that emerge when findings are synthesized across all analyses.

Findings from these complementary analyses are integrated to provide evidence-based observations and considerations to support USBE's review of the proposed UCS-M.

Scope of Work

The review consisted of two complementary phases. First, WestEd conducted standards-level benchmarking analyses comparing the UCS-M with three nationally and internationally recognized benchmark systems: the Massachusetts Mathematics Curriculum Framework, the Minnesota Academic Standards in Mathematics, and the Singapore Mathematics Syllabus. These analyses examined standards-level alignment, content coverage, domain emphasis, grade-level placement, and the progression of major mathematical ideas across the PK–12 continuum.

Second, WestEd conducted a comprehensive standards-quality review of all Utah mathematics standards. Using structured review rubrics developed in collaboration with USBE (see Appendix-A), reviewers evaluated each standard for measurability, instructional focus, clarity and accessibility, DOK, mathematical rigor, developmental appropriateness, and the integration and appropriateness of the Utah Mathematical Practices. Independent reviews, calibration activities, double-coding, and quality-control procedures were used to promote consistency in the application of the review criteria.

The analyses presented in this report synthesize findings across these complementary lines of evidence to provide a comprehensive evaluation of the UCS-M. Throughout the report, findings are considered collectively rather than in isolation to identify recurring themes, cross-cutting observations, and areas for consideration.

The Utah Core Standards for Mathematics (UCS-M)

The draft UCS-M present a PK–12 progression designed to develop conceptual understanding, procedural fluency, and mathematical reasoning. The standards are organized around major mathematical domains in PK–8 and at the high school level. For the purposes of comparisons with Benchmark standards, the domains within the UCS-M in PK–8 are summarized into the domains of Number and Operations, Ratios and Proportional Reasoning, Algebra, Functions, Geometry and Measurement, and Statistics and Data Science; at the high school level, the UCS-M are summarized by the domains of Algebra, Functions, Number Systems, Geometry, Data Science, and Matrices and Vectors. In addition to the content standards, the UCS-M explicitly integrate eight Utah Mathematical Practices throughout the standards and identify Essential Competencies at each grade level to highlight foundational learning priorities. The standards also include expectations related to mathematical modeling and data science across the PK–12 progression.

Methodology

WestEd completed the review process in two phases: (a) a benchmarking analysis and (b) a standards-quality review. Together, these complementary analyses provided multiple sources of evidence regarding the content, organization, quality, and instructional utility of the proposed UCS-M.

The benchmarking analysis included standards-level crosswalks comparing each Utah standard with corresponding standards in the Massachusetts Mathematics Curriculum Framework, the Minnesota Academic Standards in Mathematics, and the Singapore Mathematics Syllabus. These analyses examined standards-level alignment, domain-level content coverage, differences in grade-level placement, and the relative emphasis placed on major mathematical domains. Reviewers also compared the Utah Mathematical Practices with the Standards for Mathematical Practice reflected in the Massachusetts and Minnesota frameworks.

The standards-quality review employed a structured set of review rubrics developed in collaboration with USBE (see Appendix-A). Four mathematics content experts independently evaluated each Utah standard for measurability, instructional focus, clarity and accessibility, DOK, mathematical rigor, developmental appropriateness, and the integration and appropriateness of the Utah Mathematical Practices. Reviewers completed calibration exercises prior to coding, approximately 20 percent of standards were independently double-coded to evaluate reviewer consistency, and standards requiring additional discussion were adjudicated through a structured quality-control process led by a senior mathematics content expert.

This section provides a high-level overview of the review methodology. Detailed descriptions of the benchmark selection rationale, standards crosswalk methodology, review rubrics, reviewer training and calibration procedures, quality-control processes, inter-rater reliability analyses, and supporting technical documentation are provided in the Benchmarking Gap-Analysis Memo and the Standards-Quality Review Memo, which accompany this report as attachments.



Benchmark Comparisons

A central component of this review was the comparison of the UCS-M with nationally and internationally recognized benchmark systems: the Massachusetts Mathematics Curriculum Framework, the Minnesota Academic Standards in Mathematics, and the Singapore Mathematics Syllabus. Together, these benchmarks provide multiple perspectives on high-quality mathematics standards, representing nationally recognized expectations, high-performing state standards, and an internationally respected mathematics curriculum.

Standards-level crosswalks were developed to compare the Utah standards with each benchmark system and were subsequently synthesized into analyses of content coverage, domain-level emphasis, grade-level placement, and overall progression. Rather than evaluating whether the standards are identical, these comparisons identify areas of broad alignment; distinguish meaningful differences in emphasis and organization; and provide context for understanding the unique characteristics of the Utah standards. The following sections summarize the major findings from these benchmark comparisons and highlight the most significant similarities and differences observed across the benchmark systems.

Overall Comparisons Across Benchmark Systems

Overall, the benchmarking analyses indicate that the UCS-M are highly comparable to the benchmark systems reviewed. The strongest correspondence was observed with the Massachusetts mathematics standards, where the Utah standards demonstrated substantial alignment across nearly all domains and grade levels. In both comparisons, the vast majority of Utah standards exhibited strong or partial grade-level alignment, indicating that the mathematical content, sequencing, and overall organization of the standards closely reflect nationally recognized expectations.

Comparisons with the Minnesota mathematics standards also demonstrated broad alignment, although several differences in emphasis and organization were identified. These differences were generally concentrated in the treatment of advanced secondary mathematics; the organization of selected concepts across grade levels; and the relative emphasis placed on Statistics and Data Science, where Utah provides a more explicit and comprehensive progression. Despite these differences, the overall mathematical progression and content coverage remained highly comparable across the two systems.

The comparison with the Singapore Mathematics Syllabus revealed the greatest differences among the benchmark systems. However, these differences were driven primarily by variations in the sequencing and organization of mathematical concepts rather than by substantial differences in overall content coverage. Singapore generally introduces many mathematical ideas earlier in the elementary grades and places greater emphasis on advanced mathematics,

including calculus, during the pre-university years. Conversely, Utah places considerably greater emphasis on Data Science and statistical reasoning throughout the PK–12 progression. As a result, many apparent differences reflected alternative approaches to curriculum design rather than omissions of mathematical content.

Taken together, the benchmarking analyses suggest that the Utah standards reflect a comprehensive and rigorous mathematics curriculum that is broadly aligned with nationally recognized expectations while also incorporating several distinctive features. The most notable characteristics of the Utah standards include a sustained emphasis on Data Science; an explicit integration of Mathematical Practices throughout the content standards; and organizational decisions that distinguish the Utah standards from the benchmark systems without substantially altering the overall breadth of mathematical content.

Benchmark Spotlights

Massachusetts

Massachusetts was selected due to its longstanding reputation for rigorous, coherent expectations, and strong emphasis on foundational skills and fluency. Massachusetts is frequently used as a reference point in external reviews and cross-state comparisons, making its standards a credible high bar for evaluating depth, grade-to-grade progression, and readiness for advanced coursework.

The UCS-M demonstrated a high degree of alignment with the Massachusetts mathematics standards. Strong or partial alignment was observed across nearly every domain, indicating that the Utah standards reflect mathematical expectations comparable to one of the nation's most rigorous state mathematics frameworks.

Across grades K–8, the two systems demonstrated particularly strong correspondence in most domains including Number and Operations, Ratios and Proportional Reasoning, Algebra, and Functions. While Geometry and Measurement also exhibited substantial overlap, Massachusetts seemed to place a slightly greater emphasis on measurement-based problem-solving, including multistep measurement conversions and generating and representing measurement data using line plots. At the high school level, Algebra, Functions, Geometry, Data Science, and Matrices and Vectors all demonstrated nearly complete alignment.

The primary distinctions between the two systems were relatively modest. Massachusetts places somewhat greater emphasis on selected Geometry and Measurement concepts in K–8, whereas Utah provides a substantially more extensive progression in Statistics and Data Science. Overall, however, the analyses indicate that the Utah standards closely reflect the breadth, depth, and organization of mathematical content represented in the Massachusetts framework.

Minnesota

Minnesota was selected because their mathematics standards are widely viewed as clear, coherent, and practical for instruction, with a strong focus on grade-by-grade progression and readiness for algebra. The Minnesota standards provide a strong comparison point for usability and coherence alongside rigor, and the state's recent revisions further emphasize reasoning, problem-solving, and access for all students. Because Minnesota adopted a substantially revised mathematics framework in 2022¹, the benchmark comparison was conducted using these most recently adopted standards.

Unlike the Massachusetts mathematics standards, the 2022 Minnesota Academic Standards in Mathematics are organized using a different conceptual framework. Rather than traditional mathematics domains, the standards are organized around three broad content strands: Patterns and Relationships, Spatial Reasoning, and Data and Probability. These strands are supported by seven K–12 Anchor Standards that articulate learning progressions across grade levels. The standards also incorporate the Standards for Mathematical Practice (SMPs) from the Common Core framework, together with an additional cross-cutting dimension, Contribution and Context, which emphasizes the application of mathematics in culturally and locally relevant contexts. These structural differences provide important context for interpreting the benchmark comparison, as mathematical ideas are grouped, sequenced, and integrated differently than in the Utah standards.

Consistent with these structural differences, the comparison of the UCS-M with the Minnesota mathematics standards revealed more noticeable differences in organization and instructional emphasis than were observed for the Massachusetts Mathematics Curriculum Framework.

Across the elementary and middle grades, the Utah and Minnesota standards demonstrated stronger overall alignment in the domains of Ratios and Proportional Reasoning, Algebra, and Functions. Alignment was also substantial in Number and Operations, although Minnesota places greater emphasis on selected elementary concepts related to whole-number place value, operations, and number relationships. The greatest differences occurred within Geometry and Measurement, where approximately 69 percent of Utah standards exhibited strong or partial alignment. The crosswalk identified differences in the treatment of geometric constructions, classification of geometric figures, transformations, and selected measurement concepts, reflecting both differences in emphasis and the sequencing of these topics across grade levels.

The K–8 comparison also highlighted important differences in the treatment of Statistics and Data Science. While nearly all Utah standards demonstrated strong or partial alignment, the two systems organize statistical content differently. Utah establishes a comprehensive PK–12 progression in Data Science that explicitly includes data investigations, sampling, bias, study

¹https://education.mn.gov/mdeprod/idcplg?IdcService=GET_FILE&dDocName=PROD083852&RevisionSelectionMethod=latestReleased&Rendition=primary

design, interpretation of evidence, and statistical reasoning. Minnesota incorporates many of these ideas within broader statistics standards and places comparatively less emphasis on Data Science as a distinct strand spanning the PK–12 continuum.

At the secondary level, alignment was strongest in Data Science, while somewhat greater differences emerged in Algebra, Functions, Geometry, Number Systems, and particularly in Matrices and Vectors. The crosswalk indicates that these differences were concentrated within specific topic areas rather than reflecting broad differences in mathematical expectations. For example, differences were observed in the treatment of complex numbers, geometric transformations and circle geometry, and matrix and vector operations, the latter reflecting a substantially greater emphasis within the Utah standards. Overall, the analyses indicate that the Utah and Minnesota standards are broadly comparable in their mathematical content and progression, with the primary distinctions arising from differences in the organization and emphasis of selected concepts rather than the overall scope of the curriculum.

Singapore

Singapore was selected as an international benchmark because of its sustained record of high performance on international mathematics assessments—including the Trends in International Mathematics and Science Study (TIMSS) and the Programme for International Student Assessment (PISA)—and its internationally recognized, coherent mathematics curriculum.

Unlike the UCS-M and other U.S. state standards, the Singapore Mathematics Syllabus² is not organized as a comprehensive set of grade-level content standards. Rather, it is organized separately for the primary and secondary levels and structured around a curriculum framework centered on mathematical problem-solving, with content organized into broad topic areas that are revisited and extended over time. The syllabus places considerable emphasis on mastery of a relatively small number of concepts at each grade level before progression. The Singapore syllabus introduces many foundational concepts earlier than is typical in U.S. curricula; and culminates in differentiated upper-secondary pathways that include advanced mathematics topics beyond those typically expected for all U.S. high school students. These structural differences provide important context for interpreting the benchmark comparison.

The comparison between the UCS-M and the Singapore Mathematics Syllabus revealed the greatest differences among the benchmark systems reviewed. Nevertheless, the two systems demonstrated substantial alignment across many core mathematical concepts, with most differences reflecting variations in sequencing, organization, and curricular emphasis rather than omissions of mathematical content.

² <https://www.moe.gov.sg/media/files/primary/92bff26d-b2b4-4535-b868-b8415c744b91.pdf>
<https://www.moe.gov.sg/media/files/secondary/fsbb/syllabus/3118d4e6-1722-475e-a21a-7117aba21277.pdf>
<https://www.moe.gov.sg/media/files/secondary/fsbb/syllabus/d415c25d-cf29-4b05-83da-9713f38edd14.pdf>
<https://www.moe.gov.sg/media/files/secondary/fsbb/syllabus/2155cce5-f6b4-4532-897c-c5a8fa1852c6.pdf>

Across the elementary and middle grades, the strongest alignment was observed in Number and Operations and Ratios and Proportional Reasoning, where approximately 85 percent and 100 percent of Utah standards, respectively, exhibited strong or partial alignment with corresponding Singapore expectations. Alignment was also notable in Geometry and Measurement (76%) and Algebra (72%). Overall, Singapore generally introduces multiplication and division, fractions, decimals, percentage, and many measurement concepts earlier than Utah in elementary grades, while Utah introduces concepts related to coordinate geometry, integer operations, and algebraic reasoning earlier in the middle grades. The crosswalk also identified differences in the treatment of functions, reflecting Singapore's later introduction of formal function concepts.

The most substantial differences emerged in Statistics and Data Science. Utah establishes an explicit PK–12 progression in Data Science that includes statistical investigations, sampling, bias, study design, interpretation of evidence, and statistical reasoning beginning in the elementary grades. Singapore addresses data analysis and probability throughout the curriculum but places considerably less emphasis on Data Science as a distinct strand, resulting in substantially lower alignment within this domain. These differences reflect contrasting curricular priorities rather than gaps in mathematical rigor.

At the secondary level, differences became more pronounced. Strongest overall alignment was observed in Algebra (82%), while moderate alignment was observed in Functions (52%). The greatest differences occurred in Number Systems, Matrices and Vectors, Geometry, and Data Science. The crosswalk indicates that many Utah standards related to complex numbers, vectors, matrix operations, and data science have no direct counterparts within the Singapore syllabus. Conversely, Singapore places greater emphasis on advanced algebraic manipulation, mathematical modeling, and topics associated with pre-university preparation, including content that extends beyond the scope of Utah's required secondary mathematics standards. Overall, the analyses indicate that Utah and Singapore provide comparable coverage of core mathematics while differing substantially in how mathematical ideas are organized, sequenced, and emphasized across the PK–8 continuum, but somewhat more significant differences in emphasis at the high-school level.

Standards Quality Review

In addition to benchmarking the UCS-M against nationally and internationally recognized mathematics frameworks, WestEd conducted a comprehensive review of the quality of the standards themselves. This review examined the extent to which the standards are measurable, instructionally focused, clear and accessible, appropriately rigorous, and developmentally appropriate. This review employed a structured set of review rubrics developed in collaboration with USBE (see Appendix-A). The review then evaluated the integration and appropriateness of the Utah Mathematical Practices within the content standards. The following sections summarize the findings for each review criterion, highlighting patterns observed across grade levels and identifying opportunities for refinement where applicable.

Measurability

Measurability refers to the extent to which a standard clearly specifies an observable and assessable student performance. Measurable standards focus on the intended outcomes of teaching and learning by describing what students should know and be able to do using observable, low-inference performance expectations. They employ precise language, avoid vague or non-observable verbs that require subjective interpretation; provide sufficient specificity to communicate the expected level of performance without being overly prescriptive; and describe learning expectations that can reasonably be demonstrated through a single, assessable performance. Each standard was evaluated using a three-level rubric (see Appendix-A) and classified as “Measurable and Well Specified”; “Partially Measurable and/or Well Specified”; or “Not Measurable or Poorly Specified”.

Overall, the UCS-M demonstrated strong performance on this criterion. Of the 418 standards reviewed, 55 percent were rated as Measurable and Well Specified; 42 percent were rated as Partially Measurable and/or Well Specified; and only 3 percent were rated as Not Measurable or Poorly Specified. These findings indicate that the large majority of standards clearly communicate assessable learning expectations, while a relatively small proportion would benefit from revisions to improve measurability.

Across grade levels, the most common measurability concerns reflected recurring writing patterns rather than shortcomings in the mathematical content itself. The most frequently identified issues included multiple performance expectations embedded within a single standard; the use of non-observable verbs (e.g., “understand,” “recognize,” or “attend to”); vague or subjective language (e.g., “flexibly,” “efficiently,” or “reasonable”); and expectations that were insufficiently specified to support consistent interpretation by educators and assessment developers. In many cases, reviewers concluded that these concerns could be addressed through relatively minor revisions, such as replacing non-observable verbs with

observable student behaviors, clarifying vague terminology, or separating compound standards into distinct performance expectations.

Representative examples illustrate these patterns. For example, P3.CC.2 asks students to “begin to recognize” that written numbers represent a quantity and to “use a variety of tools” to model numbers, requiring substantial interpretation because the expected student behaviors are not explicitly defined. Similarly, 4.MG.4 asks students to “attend to precision and reasonableness” when measuring and sketching angles without specifying an observable performance that would demonstrate proficiency. Other standards, such as 5.MG.3, combine several distinct expectation—including constructing and using coordinate plane models, interpreting coordinate pairs, graphing points, and interpreting coordinates in context—making it difficult to assess proficiency through a single performance. Additional representative examples, together with reviewers’ explanations and suggested revisions, are provided in Appendix B (Table B1).

Overall, the findings suggest that the Utah mathematics standards are generally written in a manner that supports classroom instruction and assessment development. The relatively small number of measurability concerns identified by reviewers primarily reflect opportunities to improve precision and assessability through clearer wording, more observable performance expectations, and the separation of compound standards into discrete, measurable learning expectations.

Clarity

Clarity refers to the extent to which a standard communicates its intended mathematical expectations in language that is understandable, precise, and accessible to its intended users, including educators, curriculum developers, parents, policymakers, and other stakeholders. Clear standards describe mathematical content and practices using accurate and unambiguous language; provide sufficient guidance to communicate the intended learning expectations; avoid unnecessary jargon; and are free from grammatical or mathematical inaccuracies that could impede interpretation. Each standard was evaluated using a three-level rubric (see Appendix-A) and classified as “Clear and Accessible,” “Partially Clear and/or Accessible,” or “Not Clear or Accessible.”

Overall, the UCS-M performed well on this criterion. Of the 418 standards reviewed, 60 percent were rated as Clear and Accessible, and another 39 percent were rated as Partially Clear and/or Accessible; only 1 percent of the standards were rated as Not Clear or Accessible. These findings indicate that most standards effectively communicate the intended mathematical expectations, while a subset would benefit from revisions to improve clarity and accessibility.

Across grade levels, the most common clarity concerns reflected recurring communication issues rather than deficiencies in the mathematical content. Reviewers frequently identified vague or ambiguous language; insufficient guidance to communicate the intended performance

expectation; overly long or compound standards; and technical terminology that could be made more accessible to a broader audience. Importantly, reviewers distinguished between terminology that is appropriately technical for the mathematics being taught—particularly in middle and high school—and terminology or phrasing that unnecessarily obscures the intended learning expectation. In several instances, clarity concerns arose from the incorporation of language associated with the Utah Mathematical Practices (e.g., “build and use models,” “attend to structure,” “attend to precision”), where the practice language sometimes made it less clear what specific mathematical knowledge or skill students were expected to demonstrate.

In many instances, clarity concerns overlapped with measurability concerns, as standards that were difficult to interpret were also more difficult to assess consistently. Reviewers generally concluded that these issues could be addressed through relatively modest revisions, such as simplifying language; replacing abstract or ambiguous phrases with more mathematically precise terminology; providing additional examples or context where appropriate; and separating compound standards into more focused learning expectations.

Representative examples illustrate these patterns. For example, K.CC.8 uses the term “subitize,” which is mathematically appropriate but may not be familiar to all intended audiences without additional explanation or an illustrative example. Similarly, standards such as 6.NS.7 use phrases such as “build and use models” without clearly specifying the type of mathematical model or representation expected, while other standards incorporate Mathematical Practice language (e.g., “attend to structure” or “attend to precision”) in ways that may obscure the primary mathematical expectation. Finally, standards such as 5.NBT.6 combine multiple expectations into lengthy statements that reduce readability without adding instructional clarity. Additional representative examples, together with reviewers’ explanations and suggested revisions, are provided in Appendix B (Table B2).

Overall, the findings suggest that the Utah mathematics standards are generally written in language that is understandable and mathematically sound. The clarity concerns identified by reviewers primarily reflect opportunities to improve accessibility and interpretability through more precise wording, clearer descriptions of expected mathematical behaviors, and a more judicious integration of Mathematical Practice language within the content standards. Addressing these issues would improve readability for educators, families, and other stakeholders while preserving the mathematical intent of the standards.

Instructional Focus

Instructional focus refers to the extent to which the standards emphasize the most important mathematics for each grade level or course while avoiding unnecessary or extraneous content. For grades K–8, each standard was classified according to whether it addressed the major work, supporting work, additional work, or extraneous work of the grade, as reflected in the

mathematics standards adopted by most U.S. states. For high school, standards were classified as addressing widely applicable prerequisites, appropriate supporting work, or extraneous or inappropriate work for the course.

Overall, the instructional focus of the UCS-M was found to be highly consistent with the instructional priorities reflected in other contemporary mathematics standards used by various U.S. states. Across the PK–8 standards, 60 percent of the standards were classified as addressing the major work of the grade; 30 percent as supporting work; 10 percent as additional work; and only one standard (in Grade 1) was identified as addressing extraneous work. At the high school level, 63 percent of the standards addressed widely applicable prerequisites for college and career readiness, while the remaining 37 percent of the standards addressed appropriate supporting content. No high school standards were identified as extraneous or inappropriate for the intended course sequence.

These findings indicate that the Utah standards maintain a strong emphasis on the mathematical content that is widely recognized as most important for developing mathematical proficiency across the PK–12 continuum. The distribution of standards across major, supporting, and additional work closely mirrors the instructional priorities reflected in the mathematics standards adopted by most other U.S. states. Reviewers found little evidence that instructional attention would be diverted toward content that falls outside the expected scope of grade-level mathematics.

The single PK–8 standard identified as extraneous work represented an isolated instance rather than a broader pattern, and reviewers did not identify evidence of systematic overemphasis on peripheral or inappropriate content. Instead, the findings suggest that the Utah standards generally prioritize foundational mathematical ideas while including supporting and additional content in a manner that is consistent with nationally recognized expectations for coherent mathematics instruction.

Overall, the review indicates that the UCS-M exhibit a strong instructional focus that is well aligned with the grade-level priorities reflected in high-quality U.S. mathematics standards. This alignment supports coherent curriculum development, instructional planning, and assessment while maintaining an appropriate emphasis on the mathematical knowledge and skills that prepare students for increasingly sophisticated mathematics.

Depth of Knowledge

Depth of Knowledge (DOK) refers to the level of cognitive complexity required for a student to successfully demonstrate proficiency on a standard. In assigning DOK ratings, reviewers considered the minimum depth of mathematical knowledge a student would need to successfully complete the performance expectation described in each standard. Rather than focusing on the difficulty of the mathematics itself, the ratings reflect the complexity of the thinking required to demonstrate proficiency. Standards were classified using Webb’s four-level

DOK framework: DOK 1 (Recall and Reproduction); DOK 2 (Skills and Concepts); DOK 3 (Strategic Reasoning); and DOK 4 (Extended Investigation). In some cases, a standard could reasonably support tasks at multiple DOK levels depending on how the task was implemented. In these instances, reviewers assigned the lower DOK level to represent the minimum DOK the performance expectation was likely to elicit.

Overall, the cognitive demand reflected in the UCS-M was well balanced and consistent with expectations for high-quality mathematics standards. Of the 418 standards reviewed, 7 percent were classified as DOK 1; 61 percent as DOK 2; 31 percent as DOK 3; and 1 percent as DOK 4. The predominance of DOK 2 and DOK 3 standards indicates that the Utah standards generally require students to apply conceptual understanding, make mathematical decisions, justify reasoning, and engage in multistep problem-solving rather than relying primarily on memorization or routine procedures. Exemplar UCS-M standards that are representative of each DOK level are presented in Table 1 below.

Table 1. UCS-M That Are Illustrative of Specific DOK Levels

DOK Level	Descriptors/Criteria	Examples
DOK 1	- Well-defined, routine tasks involving recall or recognition of facts, definitions, or terms; carrying out step-by-step procedures and algorithms; or rote application of formulas - Can be completed with little or no conceptual understanding of the topic - DOK revealed is rote memorization and reproduction of procedures	P4.CC.1—With support, <i>accurately</i> recite number names and the counting sequence to 20. (MP 6) K.CC.2—<i>Accurately</i> count forward from a given number between 1 and 100. Attend to the <i>counting structure</i>. (MP 6, 7) 1.NBT.1—Count to 120 <i>accurately</i>, starting at any number. Represent a number of objects up to and including 120 with a written numeral. (MP 6) 2.NBT.3—Read three-digit whole numbers and <i>represent the place value structure in</i> those numbers using numerals, base 10 word form, and expanded form. (MP 7) 3.MG.3—<i>Add or remove context</i> to solve one-step story problems involving length, liquid volume, mass, and time. (MP 6)

DOK 2	• Requires some conceptual understanding of the underlying mathematics, but the task is still routine in nature; there is a straightforward process to follow once the student identifies the problem type • Requires some amount of reasoning or decision-making (e.g., which common denominator, which method to solve the system, which property to check) • Often involves multiple steps	4.NF.8—Compare two decimal numbers to the hundredths place by reasoning about their size. Justify the comparison. <i>Represent the relationship</i> between two numbers using comparison symbols $<$, $=$, and $>$. (MP 3, 7) 7.D.3—Create <i>precise and reasonable</i> visual representations, including histograms (with technology), dot plots, and box plots. Analyze and interpret visual representations and numerical summaries for measures of center (mean and/or median) and measures of variability (mean absolute deviation and/or inter-quartile range). (MP 6) S1.G.6—<i>Construct, justify and communicate clear arguments</i> that show how the criteria for triangle congruence (ASA, SAS, SSS) can be established using the definition of congruence in terms of rigid motions. (MP 3) S3.A.2—Create equations and inequalities in one variable to <i>model a context</i> and use them to solve problems. Include equations arising from linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, square root and cube root functions. (MP 3)
DOK 3	• Nonroutine task; no one straightforward process that can be followed, so strategic thinking is required. A need for experimentation and tinkering is common • In addition to applying conceptual understanding of the underlying math, the task requires justification, comparison, evaluation, reasoning within a single problem • While verbs are not 100% reliable for determining DOK, DOK 3 tasks often include verbs like explain, justify, construct an argument, decide, evaluate, justify, and analyze • May require making connections between different mathematical ideas or topics	2.NBT.6—<i>Build and use concrete and pictorial models</i> to determine the sums and differences of three-digit numbers with sums and minuends up to and including 999. Use the models to <i>represent and describe the structure of</i> combining hundreds with hundreds, tens with tens, ones with ones, and composing and decomposing tens and hundreds. <i>Ask questions to compare</i> concrete and pictorial models with efficient numerical strategies. (MP 1, 4, 7) 5.NF.3—<i>Build and use models</i>, including area models, to multiply fractions, whole numbers, and mixed numbers. Connect the properties of multiplication to multiplying fractions. Solve problems involving multiplication of fractions and mixed numbers <i>using real-world contexts and equations</i> (fraction by a fraction, fraction by a mixed number, mixed number by mixed number). (MP 2, 4) 8.G.1—Use rigid transformations to establish a definition of congruent figures. <i>Justify</i> that two shapes are congruent through the use of rigid transformations. <i>Make and evaluate conjectures</i> about attributes of, rotations, reflections, and translations with and without coordinates. (MP 3, 8) S2.D.4—Use the statistical evidence to evaluate results from analyses to answer questions about associations between two quantitative variables. Identify ways to refine investigative questions, data collection, visualization, or analysis. Represent the relationship with a curve of best fit and use the model of the equation to solve problems. <i>Justify</i> statistical reasoning and results to others in a variety of formats including verbal, written, and visual. (MP 3, 8)

DOK 4

- Requires investigation, complex reasoning, planning, and developing ideas over an extended period of time
- Nonroutine task with a wide range of possible solutions, approaches, and ways of engaging
- Often requires time to consider and process task constraints
- Often involves drawing on mathematical knowledge and understanding to deal with ambiguity or “messiness”

4.D.1—Determine a topic question and *ask investigative questions* that will lead to collecting, analyzing, and interpreting data with up to two variables. *Make conjectures* about the impact of the sampling process and sample size on results. (MP 1, 8)

5.D.1—Determine a topic question and *ask investigative questions* that will lead to collecting, analyzing, and interpreting data with up to four variables. *Ask questions* to identify potential sources of bias in data collection, representation, and interpretation. (MP 1)

5.D.2—*Select and use tools strategically* to collect and organize data. Build data visualizations. *Ask questions* to consider a given data set with up to four variables. *Make conjectures* about potential sampling approaches and how those approaches impact results. (MP 1, 5, 8)

6.D.2—*Select and use tools appropriately and strategically* to generate, collect, and organize data. Ask questions about how the data were collected and whether the data are useful to answer the statistical question of interest. (MP 1, 5)

S2.D.2—*Select the appropriate statistical tools* to create a data collection plan. Collect and organize primary data to investigate the association between two variables and make conjectures. For secondary data, determine if data collected are useful to answer the statistical question of interest. (MP 5)

This distribution of the UCS-M predominantly representing DOK 2 and DOK 3 is also broadly consistent with the cognitive expectations reflected in contemporary U.S. mathematics standards adopted by many other states, where the majority of standards are expected to elicit DOK 2 and DOK 3 thinking. As expected, DOK 1 standards occurred primarily in the early grades where foundational knowledge and fluency are essential precursors to more complex mathematical reasoning. Likewise, relatively few standards were classified as DOK 4, reflecting the fact that state mathematics standards are generally intended to support learning and assessment through classroom instruction and on-demand statewide assessments rather than extended investigations conducted over prolonged periods of time.

The five standards classified as DOK 4 require students to engage in extended investigation, planning, and decision-making over time—for example, designing statistical investigations, selecting appropriate data collection methods, and evaluating the suitability of data for answering statistical questions. While these expectations reflect authentic mathematical practice, they may present challenges for traditional on-demand statewide assessments. As Utah continues refining the standards and associated assessment system, it may be worthwhile to consider whether these standards are best represented as DOK 4 expectations or whether they could be reframed to preserve the intended mathematical learning while supporting valid measurement through on-demand assessment formats.



Overall, the review indicates that the UCS-M reflect an appropriate progression of cognitive demand across the PK–12 continuum. The standards place substantial emphasis on conceptual reasoning and mathematical decision-making while maintaining an appropriate role for foundational knowledge and procedural fluency in the early grades.

Mathematical Rigor

Mathematical rigor refers to the complementary development of procedural skill, conceptual understanding, and application. Reviewers identified each dimension reflected in a standard's performance expectations; a standard could receive more than one classification when it required students to integrate one or more of concepts, procedures, and/or applications. Procedural classifications indicated that students were expected to demonstrate a mathematical skill or procedure; conceptual classifications required mathematical understanding beyond the execution of a procedure; and application classifications required students to use mathematics in a real-world situation or context.

It should be noted that some early-grade standards (particularly in PK and K) were classified as procedural skill because they emphasize the recall of foundational mathematical knowledge (e.g., counting sequences, number names, or basic facts). Although these expectations are more appropriately characterized as foundational recall than procedural fluency, they were coded as procedural to maintain consistency within the procedural-conceptual-application framework used in this review.

Overall, the UCS-M place the greatest emphasis on conceptual understanding while maintaining substantial attention to procedural skill and application. Across all 418 unique standards summarized in the standards review memo, 68 percent emphasized conceptual understanding; 48 percent addressed procedural skill or fluency; and 38 percent incorporated application. Every standard addressed at least one dimension of rigor. However, since the categories were not mutually exclusive, the percentages across the standards need not sum to 100 percent.

The grade-level results show that conceptual understanding remains prominent throughout the PK–12 progression, accounting for most of the standards in every grade or course. The percentage emphasizing conceptual understanding ranged varied across grades. Particularly strong concentrations of conceptual expectations occurred in Grade 5—where students extend their understanding of fractions, decimals, volume, and data—and in Secondary I, where the standards emphasize relationships among algebraic, functional, geometric, and statistical representations.

The emphasis on procedural skill or fluency varied more noticeably across grades. Procedural expectations were relatively prominent in kindergarten (73%) and reflect emphasis on topics such as foundational counting, number, and early operations skills. They generally accounted for a smaller share of standards during the upper elementary and middle grades, reaching their lowest level in Grade 8 (29%). At the high school level, procedural emphasis increased, where

45 percent of standards addressed procedural skill or fluency in Secondary I, 63 percent in Secondary II and 53 percent in Secondary III. Importantly, these high school courses also remained conceptually oriented with 88 percent of the standards in Secondary I, 70 percent of the standards in Secondary II, and 68 percent of the standards in Secondary III emphasizing conceptual understanding; the greater procedural emphasis therefore did not replace conceptual expectations.

Application also varied by grade and course. It was most prominent in Grade 5 (62%), followed by Secondary III—Data Science and Algebra II—Data Science (60%), Grade 7 and Secondary I (50% each), and Grade 6 (46%). These concentrations correspond to grades and courses in which students are frequently expected to solve contextual problems, interpret quantities and representations, model relationships, or conduct statistical investigations. Beyond the early elementary grades, application was least prevalent in Secondary II (26%) and Algebra I (7%). Secondary II features a significant amount of abstract algebra content as well as geometry-focused content where connections to real-world applications are not explicitly included in the standards. (In Geometry, this is balanced by the large number of data science standards, which are heavily applications-focused.) Algebra I likewise includes a significant amount of abstract content that is not explicitly connected to applications in the standards, and also includes none of the data science standards that are included in Secondary I.

Aside from patterns related to specific high school courses observed above, the mathematical rigor patterns we observed in the UCS-M are broadly compatible with the content emphasis of the Massachusetts standards, which were found through the crosswalk analyses to be highly aligned with Utah. However, the Massachusetts standards were not independently coded using the same mathematical-rigor rubric; consequently, these comparisons should be interpreted as evidence of broad consistency in content and performance expectations rather than as direct comparisons of rigor percentages.

Overall, the findings indicate that the UCS-M maintain a sustained emphasis on conceptual understanding while varying the relative attention to procedures and applications in ways that generally correspond to the mathematical content of particular grades and courses.

Vertical Alignment and Developmental Appropriateness

Evaluation Approach

The Utah State Board requested an evaluation of the extent to which the draft UCS-M establish a logical progression of mathematical knowledge and skills from preschool through grade 12, ensuring that prerequisite knowledge is established before more advanced concepts are introduced. To address this question, WestEd synthesized evidence from both phases of the review. Specifically, the analysis draws upon (a) the standards-quality review of developmental appropriateness, including reviewer comments and developmental issue flags; (b) benchmark comparisons examining the placement and sequencing of mathematical content relative to nationally and internationally recognized mathematics standards; and (c) supporting evidence from the instructional focus, mathematical rigor, and DOK analyses. Collectively, these analyses provide evidence regarding the overall progression of the standards, while recognizing that the review did not constitute a comprehensive concept-by-concept learning progression analysis.

Overall Findings

Overall, the findings indicate that the UCS-M establish a developmentally appropriate PK–12 progression that is broadly aligned with nationally recognized mathematics standards. Of the 418 standards reviewed, 98 percent were rated Developmentally Appropriate; and no standards were rated Not Developmentally Appropriate. The strongest ratings were observed across grade 2, grades 4–8, and Secondary III, where all standards were judged developmentally appropriate for the grade and/or placed appropriately within the course sequence. A number of standards in Secondary II and III were denoted as extended standards; while not developmentally inappropriate, these standards typically appeared one to two years earlier than in most other states.

The benchmark comparisons similarly indicate that Utah’s overall mathematics progression is highly comparable to the Massachusetts mathematics standards. Across both K–8 and high school, the vast majority of Utah standards demonstrated strong or partial grade-level alignment with these benchmark systems, and very few standards were rated as appearing in a different grade-level in the benchmark systems. This suggests that the overall sequencing of mathematical content closely reflects nationally recognized expectations. Comparisons with Minnesota and Singapore revealed somewhat greater differences in sequencing and organization, although many of these differences reflected alternative curricular structures and instructional pathways rather than fundamentally different mathematical expectations.

Taken together, these findings suggest that the Utah standards establish a logical progression of mathematical ideas across the PK–12 continuum while remaining broadly consistent with the sequencing reflected in other high-quality mathematics standards.

Patterns Identified Across the Review

Although the overall progression was found to be developmentally appropriate, reviewers identified several recurring patterns that may warrant further consideration.

In the early grades, the mathematical content itself was generally judged to be appropriate for the intended grade levels. The majority of developmental concerns instead related to the level of reasoning or abstraction expected within selected standards. In several instances, reviewers noted that students were expected to engage in activities such as constructing arguments, making or evaluating conjectures, or reasoning about mathematical structures in ways that may exceed typical developmental expectations for the grade. In many cases, these concerns were closely related to the incorporation of Mathematical Practice language within the content standards rather than to the mathematical content itself.

In the high-school pathways, reviewers noted that content that was denoted as extended topics standards in year 1 (matrices and matrix algebra) and 2 (vector and vector algebra, some complex number topics, and conic sections) courses, while not developmentally inappropriate, appeared one to two years earlier than in most other states. For students who intend to go on to Calculus in year 4 of high school, these topics are an important part of the necessary preparation for that course and are typically taught in honors versions of year 1 and 2 courses. Importantly, these observations do not suggest that the content itself is inappropriate for high school mathematics, but rather that teachers should take special care regarding developing prerequisite knowledge and ensuring that students are prepared for these topics and appropriately supported when the topics are introduced.

The benchmark analyses provide additional context for these observations. Relative to the Massachusetts standards, only limited differences in content placement were identified, suggesting broad agreement regarding the progression of most mathematical concepts. Comparisons with Singapore revealed more substantial differences in sequencing, with Singapore introducing several foundational topics—such as multiplication and division, fractions, percents, and some measurement and geometry ideas—earlier than Utah. Conversely, Utah introduces and develops Data Science substantially earlier and more extensively than the benchmark systems, reflecting an intentional curricular emphasis rather than a developmental concern.

Table 2 presents the various sources of evidence used for this synthesis.

Table 2. Evidence Base for the Evaluation of Vertical Alignment and Developmental Appropriateness

Source of Evidence	Summary of Findings
Developmental Appropriateness Review	Overall, the developmental appropriateness review found that the UCS-M establish a developmentally appropriate progression of mathematical content across the PK–12 continuum. Out of the 418 standards reviewed, 97% of standards were rated as Developmentally Appropriate. The relatively small number of partial ratings were concentrated in selected early-grade standards, where reviewers questioned the level of reasoning or abstraction expected.
Benchmark Comparisons to Minnesota	Broadly comparable progression with localized differences in sequencing and emphasis. The comparison with the Minnesota mathematics standards indicated that the overall progression of the Utah standards is broadly comparable, although more differences in sequencing, organization, and content emphasis were identified than in the comparisons with the Massachusetts standards. Most mathematical concepts demonstrated strong or partial alignment, with differences concentrated in Number and Operations, Geometry and Measurement, and high school domains, where Minnesota organizes and sequences some concepts differently. These differences largely reflect alternative approaches to structuring mathematical content rather than fundamentally different expectations for student learning.
Benchmark Comparisons to Singapore	Different curricular pathway with comparable overall mathematical scope. The comparison with the Singapore Mathematics Syllabus revealed the greatest differences in the progression of mathematical content among the benchmark systems. These differences are driven primarily by the organization and sequencing of the curriculum rather than by the overall scope of mathematical content. Singapore generally introduces several foundational concepts, including multiplication and division, fractions, percentages, measurement, and selected geometry topics, earlier than Utah and other U.S. states. On the other hand, Utah places substantially greater emphasis on Data Science throughout the PK–12 progression.

Overall, the evidence from both phases of the review supports the conclusion that the UCS-M establish a coherent and developmentally appropriate progression of mathematical learning across the PK–12 continuum. The standards are broadly aligned with the progression reflected in nationally recognized benchmark systems and demonstrate few instances of content that reviewers judged to be developmentally inappropriate. The relatively small number of standards receiving Partial Developmental Appropriateness ratings primarily reflect opportunities to refine the level of expected reasoning in selected early-grade standards.

Secondary I–III versus AGA Pathways

The Utah draft standards include two different three-year high school mathematics pathways: (1) an integrated pathway (Secondary I, II, and III) in which conceptual categories like algebra, geometry, probability, statistics, data science, and so on are woven together to highlight authentic mathematical connections between these categories, as is done in grades K through 8, and (2) an Algebra I–Geometry–Algebra II (AGA) pathway in which topics related to the conceptual category of Geometry and Data Science are separated out from other mathematics topics. While the full set of standards appears in both pathways, the standards are divided differently across Years 1, 2, and 3 of high school.³

Nearly every other national system except the United States, including the four highest-achieving PISA nations (Singapore, Japan, South Korea, and Estonia), teaches each year of secondary math using an integrated approach, with each year including a blend of algebra, geometry, trigonometry, statistics, and functions (Learning Policy Institute, 2025). The more siloed AGA approach can be traced back to the 1892 National Education Association’s Committee of Ten in an effort to standardize a chaotic high school curriculum and inconsistent college entrance requirements across the states. The Committee’s report set the disciplines and their rough ordering, solidifying the rigid one-subject-per-year siloing over the following decades through mechanisms like the Carnegie unit; the dominance of textbook publishers who standardized around separate Algebra and Geometry volumes; and college admission exams organized by subject. The AGA sequence became the near-universal national norm in the mid-20th century after the space race when the drive to funnel students toward calculus reinforced a linear, tracked, algebra-heavy high school mathematics progression (Burdman, 2015).

Scholarly research does not definitively support the clear superiority of either approach in terms of student achievement, with contextual factors (such as access to skilled and experienced teachers; instructional practices and pedagogy; balancing conceptual understanding with procedural fluency; teacher beliefs; positive learning environments; and students’ perception of teacher support and strong reciprocal relationships) all having a greater impact on student success (Cardichon et al., 2020; Corkin & Ekmekci, 2019; Hoge, 2016; Osborne, 2021; Allensworth et al., 2021; Hiebert & Grouws, 2007; Yu & Singh, 2018; Gutshall, 2016; Yeager et al., 2022; Kroeper & Murphy, 2020; Priniski & Thoman, 2020).

An important feature of high-quality secondary mathematics courses is that they are organized around mathematical “big ideas” and the connections between them rather than a checklist of procedures, facts, and formulas for students to memorize and reproduce by rote. Charles and Carmel (2005) described a mathematical “big idea” as “a statement of an idea that is central to the learning of mathematics, one that links numerous mathematical understandings into a coherent whole” (p. 10). They and other experts in the field contend that “big ideas” are

³ Editorial notes: A1.CE.2 is tagged “(MF 3, 4)” rather than MP; A1.CE.4 contains a stray “(Sk 2)”; and G.GMD.4’s cross reference is truncated to “S3.G.” where it should read S3.G.3.

important because they enable us to see mathematics as a coherent set of ideas that encourage a deep understanding of mathematics, enhance transfer, promote memory, and reduce the quantity of information that must be memorized. A focus on big ideas also enables teachers to understand how mathematical topics and ideas are connected across years and grade levels, rather than viewing them as separate entities (Charles & Carmel, 2005; Fosnot & Jacob, 2010; Ma, 2010).

For standards documents that specifically call out topics to be taught in each year of high school, this means that teachers and designers of instructional materials need to be able to view the standards for each year and clearly understand (1) what the coherent “mathematical story” is for each grade level in terms of big mathematical ideas and (2) how those big ideas are intentionally and methodically developed over multiple years to create even larger-scale mathematical storylines so that students have opportunities to develop the type of deep understanding that enables transfer and authentic problem-solving. This should be the case regardless of whether students are following an integrated pathway or an AGA pathway.

A senior reviewer with extensive expertise in secondary mathematics reviewed both pathways that appear in the Utah standards (Secondary I-III and AGA), paying special attention to big ideas and coherent mathematical storylines; findings are discussed below.

Integrated Pathway (Secondary I–III)

Secondary I includes five major areas of work:

1. Solving linear and exponential equations
2. Understanding, comparing, and representing linear and exponential functions
3. Describing characteristics of linear and exponential functions
4. Understanding and applying congruence in terms of geometric transformations
5. Analyzing data to compare distributions or explore associations between two quantitative variables

These areas of work can be thought of as different aspects of two “big ideas”:

1. Comparing situations with a constant *rate* of change versus situations with a constant *ratio* of change
2. Congruence and what does and does not change under rigid transformations

Figure 1. Comparing arithmetic sequences and linear functions with geometric sequences and exponential functions

Arithmetic Sequence

n	1	2	3	4	5
a_n	2	6	10	14	18



$$6 - 2 = 4 \rightarrow \text{constant rate of change}$$

$$a_n = 2 + 4(n - 1)$$

Geometric Sequence

n	1	2	3	4	5
a_n	2	6	18	54	162



$$6 \div 2 = 3 \rightarrow \text{constant ratio of change}$$

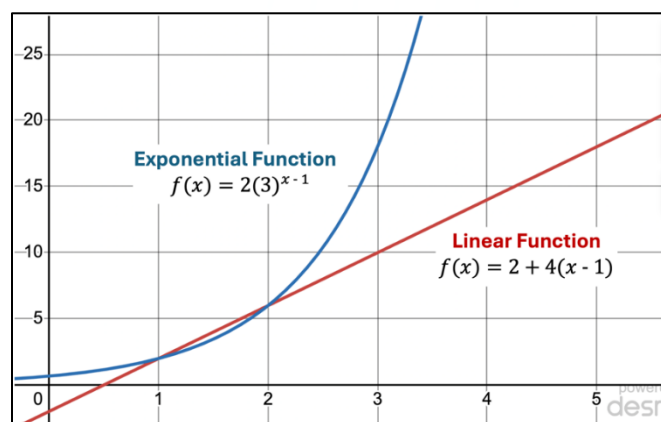
$$a_n = 2(3)^{n-1}$$

Linear Function

$$f(x) = 2 + 4(x - 1)$$

Exponential Function

$$f(x) = 2(3)^{x-1}$$

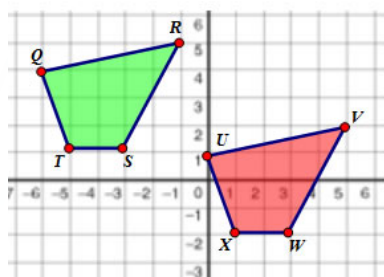


Arithmetic and geometric sequences (S1.F.4; S1.F.9) serve the entry point to the first idea (see Figure 1), which are then connected to linear and exponential functions (their continuous counterparts), with arithmetic sequences and linear functions changing at a constant *rate*, while geometric sequences and exponential functions change with a constant *ratio*. The Functions strand of the course culminates in S1.F.11, in which students are expected to understand how and why exponential growth eventually exceeds linear growth.

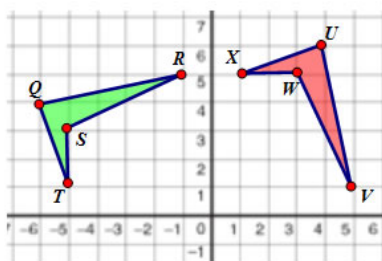
The Geometry strand of the course connects to the Functions strand via the idea of rigid transformations of geometric figures, with S1.G.2 asking students to define rigid transformations **as functions** that take points as inputs and give points as outputs (see Figure 2). This is where we see the second “big idea” addressed, with congruence defined as the existence of such a function (S1.G.3) and with triangle congruence criteria derived from that definition (S1.G.6). While “functions” are often presented as an algebra topic, this Secondary I course treats the idea of function as a key structural idea for the year that marries important ideas from both Algebra and Geometry.

Figure 2. Rigid transformations as functions that map points in the plane to other (or the same) points in the plane

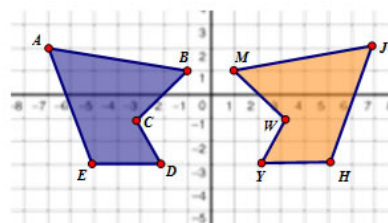
A translation $(x,y) \rightarrow (x+6,y-3)$
maps these two quadrilaterals,
so Quad QRST $\cong$ Quad UVWX



A rotation of 270° about the origin
maps these two quadrilaterals,
so Quad QRST $\cong$ Quad UVWX

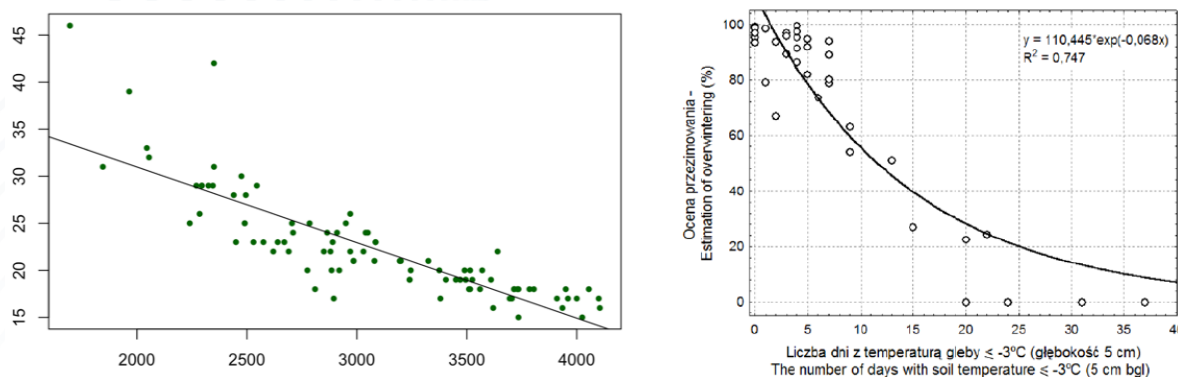


A rotation over the y axis
maps these two pentagons,
so ABCDE $\cong$ JMWHY



In the Data Science strand, we again see a connection to functions as well as to the first “big idea” of constant rate versus constant ratio as students explore bivariate relationships, determine whether they are linear or nonlinear, and consider how best to model linear relationships using line of best fit (linear functions).

Figure 3. Modeling a relationship between two variables with a linear function (left) versus with an exponential function (right)



While matrix algebra topics are not typically taught in a first-year high school course due to their more abstract nature, matrices are strongly related to linear equations, functions, and geometric transformations. As long as instructional materials address the content skillfully, the matrix algebra standards that appear under “extended topics” can be naturally interwoven with standards related to linearity, linear equations and functions, systems of linear equations, and transformations.

Secondary II includes five major areas of work that build on those from Secondary I:

1. Solving linear, exponential, and **quadratic** equations
2. Understanding, comparing, and representing functions from these three families
3. Describing characteristics of linear, exponential, and **quadratic** equations
4. Proving congruence **and similarity** via transformations
5. Analyzing and characterizing bivariate associations

Secondary II’s central organizing “big ideas” pick up where Secondary I’s two “big ideas” left off:

1. What expands or changes when a relationship is nonlinear
2. What does and does not change when we include dilations

The first idea arises in the Number Systems and Algebra threads as students extend their understanding of integer exponents to rational exponents and begin to solve quadratic equations with no real solutions. Imaginary and complex numbers are motivated by the

Fundamental Theorem of Algebra (S2.NS.1–NS.4), arriving as the answer to a natural question: How do we understand the solution(s) to an equation such as $x^2 + 1 = 0$?

$$x^2 + 1 = 0 \rightarrow x^2 = -1 \rightarrow x = \sqrt{-1}$$

There is no real number that can be squared to give us -1, and so in Secondary II, the symbol i , an imaginary number, is introduced to represent $\sqrt{-1}$. This allows students to find algebraic solutions to a class of equations that do not have real solutions:

$$x^2 + 1 = 0 \rightarrow x^2 = -1 \rightarrow x = \pm i$$

The first big idea above appears again in the Functions strand as students begin to explore quadratic functions in addition to linear and exponential ones. This new function family motivates two new analytic tools: (1) using equivalent forms of functions to reveal different properties (S2.A.1, S2.F.5—vertex vs. factored vs. standard) and (2) finding the average rate of change over an interval (S2.F.2). In grade 8 and Secondary I, students explore what happens when functions are transformed via reflections and vertical translations; in Secondary II, the “transformation toolkit” is completed as students explore function dilation (i.e., $kf(x)$) and horizontal translation (i.e., $f(x+k)$) in S2.F.7, which is supported by access to equivalent forms (e.g., vertex form, standard form).

The second big idea appears in the Geometry strand as students extend their understanding of congruence and rigid transformations to make sense of similarity, dilation, and scaling. Just as in Secondary I students defined congruence as the existence of a function composed of rigid transformations that map one figure to another, they now define similarity as the existence of a congruence transformation composed with a dilation (or contraction) function. They then explore which features of shapes similarity transformations preserve (angle relationships, ratios of corresponding sides) and which they do not necessarily preserve (e.g., side lengths).

Defining and exploring similarity lays the groundwork for trigonometry, as the equivalence of ratios of corresponding sides in similar triangles is what makes trigonometry possible. S2.G.4 defines the trigonometry ratios by observing that side ratios are invariant across similar right triangles; then in S2.G.7, students investigate the similarity of circle, leading to radian measure as a ratio of arc length to radius (S2.G.9). S2.G.11 then builds on the idea of scaling distances and line segments by a scale factor k , leading to the idea of area and volume scaling by k^2 and k^3 .

High quality instructional materials will highlight a key connection between these two big ideas, namely how the scale factor k in the Geometry strand echoes the parameter k in the Function transformations. The Data Science strand again connections to Functions thread as students are asked in S2.D.3 to investigate bivariate relationships and decide whether a linear, exponential, or quadratic model best fits the data, with “curve of best fit” replacing “line of best fit.”

Figure 4. A similarity transformation that maps a figure onto a similar figure in the plane

Similarity Transformations

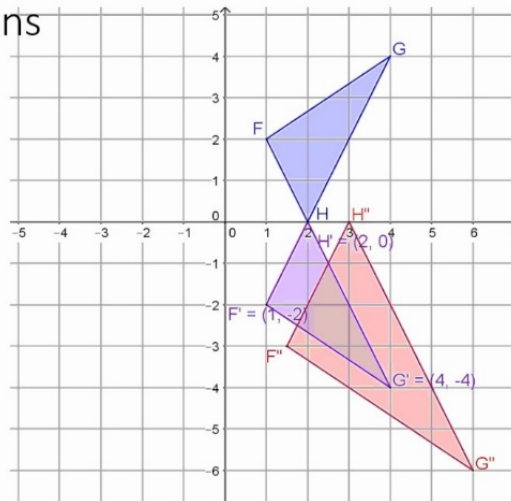
Graph $\triangle FGH$ with vertices $F(1, 2)$, $G(4, 4)$ and $H(2, 0)$ and its image after the similarity transformation.

Reflection: in the x-axis

Dilation: $(x, y) \rightarrow (1.5x, 1.5y)$

$$\begin{array}{ll} G'(4, -4) & H'(2, 0) \\ G''(6, -6) & H''(3, 0) \end{array}$$

$$F'(1, -2) \quad F''(1.5, -3)$$



While the vector algebra standards under “Extended Topics” are most closely tied to the study of linear functions and/or equations and transformations rather than to functions, in general, they can be naturally interwoven with topics related to linearity and transformations of linear functions.

All versions of **Secondary III** include four areas of major work:

- Solving polynomial, logarithmic, and radical equations
- Understanding, comparing, and representing polynomial, exponential, logarithmic, and trigonometric (sine and cosine) functions
- Describing characteristics of functions from these families
- Drawing and justifying conclusions from surveys, experiments, and observational studies

The hallmark of a coherent mathematical progression is the “coming together” of mathematical ideas over time, rather than simply adding more and more skills and ideas where the connections are unclear. We see this coherence emerge in Secondary III in two key areas:

- **Functions and Geometry.** While the study of functions expands to include logarithmic functions (the inverse of exponential functions) and radical functions (the inverse of power functions), the characteristics of functions that students describe also expands to include end behavior (i.e., how a function behaves as the independent variable gets very far from zero). Additionally, a number of “big ideas” from the Functions category are now consolidated under the umbrella of “function families as taxonomy.” This

“coming together” culminates in S3.F.7, which asks students to choose which function family makes the most sense for modeling a particular situation. Ideas from the Geometry category are also largely subsumed by Functions in Secondary III, where sine and cosine model periodic phenomena and the domain is extended past 0° – 90° (S3.F.2). Ratios of side lengths of right triangles also evolve from features of similar right triangles to become functions in their own right ($f(x) = \sin(x)$, $f(x) = \cos(x)$, etc.).

- **Statistics and Data Science.** After two years of describing samples, students in Secondary III now synthesize a wide range of knowledge and skills related to probability, conditional probability, the normal distribution, deliberate study design (survey vs. observational study vs. experiment), simulation, sampling distributions, p -values, and statistical significance (S3.D.1–D.8) in order to reason from sample to population under chance variation.

The three separate Secondary III options (Calculus pathway, Intermediate Algebra pathway, Data Science pathway) then build on these two pillars in different ways. In the **Calculus** and **Intermediate Algebra pathways**⁴, students continue expanding their knowledge of different function families as they explore rational functions, spend more time with inverse function relationships, and use algebraic arithmetic techniques to build new functions. They also deepen their understanding of trigonometric functions and identities via the unit circle, and extend their work with the complex number system through complex number arithmetic. Students who opt for the **Calculus pathway** encounter a few additional topics designed to prepare them for that course—specifically arithmetic and geometric series; sigma notation; parametric equations; and additional work with trigonometric identities and complex numbers. In the **Data Science pathway**, students go deeper into topics related to statistics, probability, and modeling rather than more advanced algebra topics, content that is likely to prepare students for an advanced statistics or quantitative reasoning course and for careers that involve collecting, analyzing, and interpreting real-world data, modeling real world phenomena with mathematics, and/or critically consuming data and data summaries collected and presented by others.

Coherence Across Secondary I–III

Six clear “mathematical storylines” carry across the three integrated courses, creating a coherent mathematical narrative:

1. **Function families gradually expand on a deliberate schedule, via a stable analytic template.** Students’ exploration of function families proceeds from linear and

⁴ The Intermediate Algebra pathway codes composition as CS3.F.16 and inverse-by-composition as CS3.F.17, while the Calculus pathway codes those same two standards as CS3.F.15 and CS3.F.16, meaning the code CS3.F.17 denotes different content in the two courses, which conflicts with the stated convention that shared CS3 codes carry across. Also, Intermediate Algebra’s compound inequality standard is typed “CSS3.A.13” rather than CS3.A.13, which we assume to be a typo. Finally, while the Calculus pathway’s fifth major area of work is billed as parametric **and polar** functions, we observed a parametric standard (CS3.F.14) with no corresponding polar standard.

exponential; to quadratic (plus absolute value and piecewise); to polynomial, radical, and logarithmic; and then to trigonometric (plus rational functions in the Calculus Pathway). Exploration of each new family also proceeds via the same five topics: key features, multiple representations, transformations, modeling, and comparison to previously explored families. (We can see this in the parallel wording of S1.F.5, S2.F.1, and S3.F.1.)

- 2. Transformations of both graphs and geometric figures are gradually expanded side-by-side, allowing for specific connection.** Students first make sense of translation and reflection of graphs and figures, which helps to connect Geometry and Algebra topics. They then move into exploring dilation of figures and similarity, which can be connected to dilation of functions and the effect on their graphical representations. The “big idea” behind this thread is that when a function acts on a figure or a graph, some properties are preserved while others change in predictable ways. By Secondary III, students are transforming trigonometric graphs using reasoning they first constructed through work with triangles in Secondary I.
- 3. The idea of rate of change is methodically developed as students move toward calculus.** Students explore and compare constant difference (slope) and constant ratio in Secondary I, then make sense of average rate of change over a closed interval in nonlinear functions in Secondary II, then examine end behavior specifically as well as comparative growth of different functions and function families in Secondary III, creating a natural runway toward the idea of the derivative for students who eventually plan to take Calculus.
- 4. Solving is framed as mathematical reasoning; the number system expands through the grades to keep solutions available.** In S1.A.4, students are asked to use mathematical reasoning to solve linear equations and inequalities, beginning from the assumption that a solution exists and justifying each algebraic manipulation. Rational exponents and complex numbers arrive in Secondary II as the logical consequence of solving new equation types, as do logarithmic, radical, and rational functions in Secondary III.
- 5. Geometry gradually evolves into trigonometry as the study of functions and geometric transformations meld.** In Secondary I, students explore rigid motion and connect it to congruence of figures; in Secondary II, these topics lead naturally into the study of dilation, similarity, right triangle side ratios, and radians. Finally, in Secondary III, these threads merge in students’ study of trigonometric functions and identities and the unit circle.
- 6. The statistical investigative cycle is revisited annually, with deepening scope each year.** While S1.D.1–D.6, S2.D.1–D.4, and S3.D.5–D.8 are structurally identical (ask a statistical question; plan and collect data (or evaluate secondary data); analyze, interpret and refine), the scope and complexity of what students are asked to do gradually increases over time, from univariate comparison and linear bivariate comparison in Secondary I, to nonlinear bivariate models in Secondary II, to categorical data, probability, and formal

inference in Secondary III. Data Science is also where each year's algebra is applied, with the strand always including opportunities for mathematical modeling with students' increasing lexicon of function families.

While the "Extended Topics" sections (matrices in Secondary I; vectors, the complex plane, and conics in Secondary II) sit slightly outside this narrative, they provide interesting connections between systems of equations and plane transformations.

Algebra I–Geometry–Algebra II Pathway

Algebra I includes three major areas of work:

1. Solving linear, exponential, and quadratic equations
2. Understanding, comparing, and representing linear, exponential, and quadratic functions
3. Describing characteristics of functions from these families

While including fewer Algebra standards and more Geometry standards (as is done in Secondary I) provides opportunities to develop rich connections across seemingly different topics, focusing tightly on one conceptual category in Year 1 has the advantage of providing a clearer sense of mathematical coherence at a level that may be more immediately obvious to students. They have the opportunity to compare and contrast three different types of equations and/or function families while investigating how algebraic structure manifests in a variety of representations—symbolic, graphic, tabular, real-world situations, and so on—in ways that are legible and recognizable as “linear-ness,” “exponential-ness,” or “quadratic-ness.” A focus on the algebraic structure of different equation and function families also helps to motivate basic transformations (e.g., vertical translation and reflection).

Limiting Year 1 to the study of algebraic topics also enables a tight focus on solving equations of different types as a process of logical reasoning, which leads naturally to the extension of the number system when familiar numbers are not sufficient (as we saw in the example above under Secondary II in which imaginary and complex numbers arise from attempting to algebraically solve equations such as $x^2 - 1 = 0$.)

Geometry likewise includes three major areas of work:

1. Understanding and applying congruence via geometric transformations
2. Proving congruence and similarity via geometric transformations
3. Analyzing and interpreting data related to comparing distributions or exploring associations

The “mathematical storyline” of this course begins with students exploring rigid motions defined as functions on the plane (G.CO.2), then defining congruence as the existence of such a function (G.CO.3) and deriving triangle congruence criteria (G.CO.6), as in Secondary I. Students then have opportunities to justify these criteria using coordinate geometry via the Pythagorean Theorem, distance formula, and slope (G.CO.7), which is eventually developed into formal proof in multiple formats (G.CO.8). From congruence, students investigate dilation and its connection to similarity (G.SRT.1), then prove the Pythagorean Theorem by similarity (G.SRT.2). This leads naturally into the study of trigonometric ratios as similarity invariants (G.SRT.3) and basic trigonometric identities (G.SRT.4). An understanding of triangle similarity can then be leveraged to prove formally that all circles are similar (G.C.1) and can define radian as arc length over radius (G.C.3). Students are then prepared to investigate area and volume scaling by k^2 and k^3 (G.GMD.1) and apply this understanding to geometric modeling and density (G.GMD.2–4). In the integrated sequence, this same learning progression is spread across three courses and tied more explicitly into Algebra topics.

It is worth noting that G.D.1 through G.D.10 is the **complete** Secondary I and Secondary II data program, accounting for one of the course’s three billed major areas of work (roughly a third of the course). These standards have essentially no connection to the geometric content and are collocated, more than integrated with geometry content. That said, the inclusion of the Data Science standards in the Geometry course could be seen as quietly providing opportunities for students to maintain algebra skills, keeping the Algebra I function families in active use during a year that would otherwise contain little symbolic algebra. This partially mitigates a well-documented weakness of AGA sequences.

Algebra II includes four major areas of work, identical to those of Secondary III:

1. Solving polynomial, logarithmic, and radical equations
2. Understanding, comparing, and representing polynomial, exponential, logarithmic, and trig functions
3. Describing characteristics of these types of functions
4. Drawing and justifying conclusions from surveys, experiments, and observational studies

As in Secondary III, we see a number of mathematical “big ideas” beginning to crystallize in two key areas: **Functions and Geometry**—where students’ study of a variety of function families over the past three years is consolidated under the umbrella of “function families as taxonomy,” with many geometry-focused ideas such as similarity and right triangles subsumed by the Functions category—and **Statistics and Data Science**, where students synthesize a wide range of knowledge and skills related to probability, study design, sampling, and statistical significance in order to reason from sample to population under chance variation. The key difference between Algebra II and Secondary III is the absence of the three geometric modeling standards which, in the AGA sequence, appear in the Geometry course instead.

Coherence Across the AGA Sequence versus the Integrated Sequence

Because the individual standards remain the same across both pathways, the same six “mathematical storylines” we saw in the integrated pathway can be traced through the AGA pathway. However, it is important to note that the forced separation of the Algebra and Geometry categories arguably increases **within-strand coherence** at the expense of some of the **cross-grade coherence** that these six storylines provide so well through the integrated sequence:

- 1. Function families expand in a “choppy” rather than steady rhythm.** Students explore linear, exponential, and quadratic function families all in Year 1, see no new function families in Year 2, then encounter polynomial, radical, logarithmic, and trigonometric functions all in Year 3. The integrated sequence provides a steady drip of new function families, whereas the AGA front-loads and back-loads work with function families, leaving a gap in the middle.
- 2. Transformation is no longer a clear unifying idea across Algebra and Geometry.** In the integrated sequence, rigid motions and transformations of graphs can be presented as the same concept explored in parallel within the same course; students can transform triangles and graphs within the same semester and can be shown that they are applying the same mathematical idea in two different contexts. In the AGA sequence, all function transformations (A1.BF.4; A1.BF.5) are presented in Algebra I while all geometric transformations appear in Geometry, a year apart. This means the connection between these two ideas must be expressly reconstructed by a teacher who notices it (if the connection is not explicitly addressed by instructional materials). This also creates a small sequencing issue in that A1.M.5 has students use 2×2 matrices to model transformations of the plane a full year before students encounter transformations of the plane in Geometry.
- 3. Exploration of rate of change is compressed, then paused.** Students explore both constant difference versus constant ratio **and** average rate of change in Algebra I. They do not encounter rate of change at all in Geometry the following year, then pick up the idea again in Algebra II in the context of end behavior and comparative growth. While the “runway to calculus” and the derivative is still present, two-thirds of it appears in Year 1, limiting its utility for students who will eventually take Calculus.
- 4. Solving and number system closure is addressed entirely in Years 1 and 3.** In Algebra I, students solve quadratic equations, leading to the Fundamental Theorem of Algebra and closure of the complex numbers. Students then encounter no new ideas around solving equations in Geometry (apart from applying basic solving techniques in geometric contexts), then solve polynomial, logarithmic, radical, and trigonometric equations in Algebra II. As mentioned above, the year-long algebraic gap that this creates is a well-documented weakness of an AGA sequence. While the inclusion of the Data Science standards in the Geometry course somewhat mitigates this gap in the draft Utah

standards, teachers should still expect that students will need to revisit foundational ideas from Algebra I and earlier grades related to functions and solving in order to be successful in Algebra II.

5. **The geometry-to-trigonometry arc is accomplished in two years (Geometry and Algebra II) rather than three.** The concept of similarity is developed in geometry via ratios of corresponding side lengths, leading natural into trigonometric ratios and identities and then radians. These ideas are then picked up in Algebra II in the context of periodic functions. While this progression may feel cleaner in structure, it is also likely more fragile in practice, since the handoff depends entirely on Algebra II teachers reactivating an idea that students have not seen since the year before (versus the Integrated progression, where the three-year development of this arc is more continually present).
6. **The statistical investigative cycle runs only twice instead of three times.** In the integrated sequence, students execute the full investigative cycle (ask; plan and collect; analyze; and interpret and refine) once a year for three years, incorporating topics from algebra and geometry each year with increasing depth and complexity. In AGA, the cycle likely runs twice during the Geometry year (G.D.1–6, then G.D.7–10 with nonlinear models) and once in Algebra II with inference. While two iterations back-to-back within a single year may offer certain affordances in terms of continuity, this structure forfeits the opportunity for annual reinforcement, and Year 1 students end up doing no statistics at all. It is also worth noting that if a third of the Geometry course is to be spent on statistics and data science, teachers must be conscientious about ensuring that appropriate time is spent on those topics rather than allowing them to be “squeezed out” should geometry-focused units run long. If this happens, students can arrive at Algebra II inference standards having never completed a descriptive statistics cycle, since there is no opportunity in Algebra I.

Development of Computational Fluency

The Utah draft standards define procedural fluency as applying procedures efficiently, flexibly, and accurately, transferring them across contexts, building procedures from other procedures, and recognizing when one strategy or procedure is more appropriate than another, all of which are well supported by research literature. The document then lays out an explicit theory of action by which computational fluency is to be developed (conceptual understanding → reasoning strategies → automatic basic fact retrieval → computational fluency), thus laying the groundwork for more complex procedural fluency through the grade levels.

The phrase “flexibly, accurately, and efficiently” functions as a marker of standards explicitly focused on fluency, while earlier standards laying conceptual groundwork for fluency can often be identified by the phrase “build and use models.” The standards also employ a three-tier vocabulary—basic fact fluency, computational fluency, and procedural fluency—to label the

Essential Competencies related to fluency at each grade. The table below shows how fluency standards create a coherent progression through each tier from pre-K through grade 8.

Table 3. Progression of Fluency-Related Expectations Through the Grade Levels

Grade Level	Fluency-Related Standards		
	Computation with Conceptual Strategies	Expected Fact Fluency	Expected Computational Fluency
PK–3	- P3.CC.4—Counting and cardinality within 5 - P3.CC.7—Subitize within 3	N/A	N/A
PK–4	- P4.CC.3, 4—Counting and cardinality within 10 - P4.CC.7—Subitize within 5	N/A	N/A
Kindergarten	K.NBT.1—Counting, cardinality, and addition or subtraction within 10; decompose 11-19 into ten + ones	K.OA.4—Addition and subtraction within 5	N/A
Grade 1	1.OA.6—Counting, cardinality, and addition or subtraction within 20 1.NBT.4—Two-digit addition with concrete or pictorial models	1.OA.7—Addition and subtraction within 10	N/A
Grade 2	2.NBT.6—Sums or differences up to and including 999; decompose three-digit numbers into hundreds, tens, and ones	2.OA.2—Addition and subtraction within 20	2.NBT.5—Addition of up to four two-digit numbers; differences of two two-digit numbers
Grade 3	3.OA.3—Multiplication of division within to 100 3.NBT.4—Multiplication of multiples of 10	3.OA.6—One-digit multiplication and division facts within 100	3.NBT.3—Addition and subtraction of three-digit numbers



Grade 4	• 4.NBT.6—Multiplication of two four-digit numbers by one-digit numbers and two-digit numbers by two-digit numbers • 4.NBT.7—Division of three-digit numbers by one-digit	N/A	4.NBT.5--Multi-digit addition and subtraction using “efficient algorithms”
Grade 5	• 5.NBT.7—Division of four-digit numbers by one-digit • 5.NBT.8–10—All decimal operations • 5.NF—All fraction operations	N/A	5.NBT.6—Multiplication of four-digit numbers by one-digit numbers and two-digit numbers by two-digit numbers
Grade 6	6.NS.1—Dividing fractions by fractions	N/A	6.NS.2—Multi-digit decimal division via an algorithm 6.NS.3—All four operations with multi-digit whole numbers and decimals
Grade 7	N/A	N/A	7.NS.4—All four operations with rational numbers, including signed decimals and fractions

Comparisons of Fluency Progressions Across Benchmark Standards

The Utah draft standards and all benchmark standards reviewed make a foundational commitment to developing conceptual understanding of number and operations first, with procedural fluency growing out of that conceptual understanding. All five sets of standards also share the same ordering of number types (whole numbers and place value, then fractions, then decimals, then signed numbers), and all lean on visual models as the bridge from conceptual understanding to procedural fluency (area models, number lines, arrays, and Singapore’s bar model tradition).

As expected, the U.S. standards are the most closely related with only minor differences in how fluency is treated and discussed, while Singapore’s standards have a few notable differences.

- The word “fluency” appears only once in Singapore’s primary syllabus; rather than stating a fluency **policy**, Singapore simply schedules fluency as **content**. For example, “mental calculation involving addition and subtraction within 20 / of a 2-digit number and ones without renaming / of a 2-digit number and tens” is a P1 (grade 1) learning objective with the same status as counting or using place value.

- Algorithms are listed generally rather than specifically; for example, “multiplication and division algorithms, up to 3 digits by 1 digit,” whereas U.S. standards tend to include modifiers that add specificity (e.g., “efficient algorithms,” “the standard algorithm”).
- Singapore’s are the only benchmark documents that include an explicit calculator policy. From P5 on, individual objectives are tagged “without calculator,” indicating that calculators are otherwise available
- Singapore’s are the only standards that differentiate by track, splitting into “Standard” and “Foundation” at P5, with the “Foundation” track deliberately reteaching P1–P4 material in P5.

The table below illustrates where fluency milestones fall in different standards documents.

Table 4. Comparison of Fluency-Related Milestones Across Benchmarks

Milestone	Utah	Massachusetts	Minnesota	Singapore
Addition and/or subtraction facts from memory	End of grade 2 (3.OA-style “know from memory” in 2.OA.2)	End of grade 2	Never explicitly stated; fluency within 20 via mental strategies required by end of grade 2	P1–P2 (grades 1–2)—as mental calculation objectives
Multiplication and/or division facts	End of grade 3, all one-digit products	End of grade 3, within 100	Grade 4 , and framed as 0–12; grade 3 covers only 2s, 5s, 10s, squares	P2 (grade 2) —with 2, 3, 4, 5, and 10 P3 (grade 3) —with 6, 7, 8, and 9
Multi-digit addition and subtraction	Grade 4, “efficient algorithms”	Grade 4, standard algorithm	No fluency benchmark; grade 4 asks for <i>estimation</i>	P2 (grade 2) —with three-digit numbers P3 (grade 3) —with four-digit numbers
Multi-digit multiplication	Grade 5, “efficient numerical strategies”	Grade 5, standard algorithm	Grade 5, “efficient strategy”—decomposition or area model	P3–P4 (grades 3 and 4)

Milestone	Utah	Massachusetts	Minnesota	Singapore
Multi-digit division	Grade 5, efficient strategies; no algorithm named	Grade 6, standard algorithm	Grade 5, procedures that <i>may</i> include partial quotients and standard algorithms	P3–P4 (grades 3 and 4)
Decimals (all four operations)	Grade 5 with models; grade 6 applies an algorithm	Grade 6, standard algorithm for each	Grade 6, “solve situations requiring arithmetic”	P4–P5 (grades 4 and 5)
Fraction addition and subtraction	Grade 4 with like denominators, using models Grade 5 with unlike denominators	Grade 4 with like denominators Grade 5 with unlike denominators	Grade 4 with like denominators, using models Grade 5 with unlike denominators	P2—like denominators within one whole P3—related fractions within one whole P4—no more than two different denominators P5—fractions and mixed numbers
Fraction multiplication	Grade 4, fractions by whole numbers Grade 5, fractions by fractions with models	Grade 4, fractions by whole numbers Grade 5, fractions by fractions	Grade 6, with generalizable procedures	P5
Fraction division	Grade 5, unit fractions by whole numbers and whole numbers by unit fractions with models Grade 6, fractions by fractions with models	Grade 5, unit fractions by whole numbers and whole numbers by unit fractions Grade 6, fractions by fractions	Grade 6, with generalizable procedures	P6
Signed rational numbers	Grade 7	Grade 7	Grade 7	Secondary 1 (grade 7)

Utah Mathematical Practices

One of the distinguishing features of the UCS-M is the explicit integration of the Utah Mathematical Practices throughout the content standards. Unlike many mathematics standards documents, which present mathematical practices as a separate companion framework, the Utah standards intentionally embed one or more mathematical practices within every content standard to reinforce the development of mathematical reasoning alongside mathematical content. This approach reflects the view that mathematical proficiency is developed not only through mastery of mathematical concepts and procedures but also through engaging students in productive mathematical habits of mind, including reasoning, communication, modeling, strategic use of tools, and mathematical inquiry.

As part of this review, WestEd evaluated the Utah mathematical practices from two complementary perspectives. First, reviewers examined the extent to which the Utah Mathematical Practices identified within individual standards were meaningfully integrated into the standards' performance expectations and appropriately aligned with the mathematical content. Second, the Utah Mathematical Practices were compared with the Standards for Mathematical Practice (SMPs) that serve as the mathematical practice framework adopted or adapted by most U.S. state mathematics standards, including the Massachusetts and Minnesota mathematics standards used as benchmarks in this review. Together, these analyses provide evidence regarding both the implementation of the Utah Mathematical Practices within the standards and the extent to which they reflect nationally recognized conceptions of mathematical proficiency.

Integration of the Utah Mathematical Practices Within Standards

The standards review found that, in general, the Utah Mathematical Practices are consistently and meaningfully integrated throughout the UCS-M. Reviewers evaluated whether the Utah Mathematical Practice(s) identified within each standard were reflected in the mathematical performance students were expected to demonstrate rather than serving as isolated or disconnected additions to the content standard.

Across the 418 standards reviewed, 90 percent were rated as having all identified Utah Mathematical Practices meaningfully integrated into the performance expectations, while 5 percent were rated as having some identified practices integrated and 5 percent were rated as having no meaningful integration. These findings indicate that the UCS-M are generally successful in connecting mathematical practices with mathematical content in ways that support coherent instruction instead of treating the practices as separate instructional goals.

Strong integration was observed throughout the elementary grades, where nearly all standards received the highest integration rating. Similar patterns were observed across middle school, with only isolated instances in which reviewers identified opportunities to strengthen the relationship between the selected Utah Mathematical Practice and the mathematical expectation. At the high school level, integration ratings remained generally strong, although reviewers identified somewhat more standards in which one or more practices were only partially integrated or not fully reflected in the stated performance expectation. Even within the high school standards, however, approximately four out of every five standards demonstrated complete integration of the identified Mathematical Practices.

Across grade levels, reviewers consistently observed that the UCS-M intentionally embed mathematical reasoning within content learning. Rather than treating the Utah Mathematical Practices as instructional recommendations or separate process standards, the UCS-M incorporate them directly into the student performance expectations. This design encourages students to develop conceptual understanding, procedural skill, and mathematical reasoning simultaneously and reflects an integrated view of mathematical proficiency.

The relatively small number of standards receiving partial integration ratings did not generally reflect concerns with the Utah Mathematical Practices themselves. Instead, reviewers most often concluded that the selected practice was only partially represented within the wording of the standard or that additional performance expectations would be needed for the practice to be fully realized. In some cases, reviewers noted that the identified Utah Mathematical Practice reflected only one aspect of the mathematical task, while another practice would also have been appropriate given the complete performance expected of students.

Overall, the findings suggest that the explicit integration of the Utah Mathematical Practices represents a significant strength of the UCS-M. The standards consistently reinforce mathematical reasoning alongside content learning and demonstrate a high degree of coherence between mathematical practices and mathematical expectations.

Appropriateness of the Utah Mathematical Practices

In addition to evaluating integration, reviewers examined whether the Utah Mathematical Practice(s) identified within each standard were appropriate for the mathematical content and performance expectations described by the standard. Whereas the integration review focused on whether the practice was meaningfully reflected in the standard, the appropriateness review considered whether the selected practice represented the most suitable mathematical habit of mind for the content being taught.

Overall, reviewers found a very high degree of alignment between the Utah Mathematical Practices and the mathematical content of the standards. Across all 418 standards, 95 percent were rated as having all identified Utah Mathematical Practices appropriate, while only 2 percent were rated as having some identified practices appropriate and 2 percent were rated

as having no identified practices appropriate. These findings indicate that the Utah Mathematical Practices selected for individual standards are generally well matched to the mathematical knowledge, reasoning, and problem-solving behaviors students are expected to demonstrate.

The strongest results were observed throughout the elementary and middle grades, where nearly all standards were judged to have appropriately selected Utah Mathematical Practices. Similarly high levels of agreement were observed across the secondary courses, although reviewers identified a small number of standards where alternative or additional Utah Mathematical Practices could have strengthened the connection between the mathematical activity and the intended learning outcome, or where a typo was suspected. These instances were relatively uncommon and did not suggest any systematic pattern of inappropriate practice assignments.

Where reviewers identified opportunities for improvement, they most often concluded that multiple Utah Mathematical Practices could reasonably apply to the same mathematical task. In these cases, the identified practice was not necessarily incorrect; rather, reviewers observed that an additional practice—or, less frequently, a different practice—might more completely capture the mathematical thinking required by the standard. These observations reflect the interconnected nature of mathematical proficiency, where students frequently engage in reasoning, modeling, communication, strategic tool use, and use of structure simultaneously while solving mathematical problems.

Taken together, the integration and appropriateness findings suggest that the Utah Mathematical Practices have been thoughtfully incorporated throughout the standards and generally align well with the mathematical content they accompany. The relatively small number of partial ratings reflects opportunities to further strengthen the connection between individual standards and the practices they are intended to promote rather than concerns with the overall design or intent of the Utah Mathematical Practices themselves.

Comparison With the Standards for Mathematical Practice Used by Most U.S. States

As part of the benchmark review, WestEd compared the Utah Mathematical Practices with the Standards for Mathematical Practice (SMPs) that serve as the mathematical practice framework adopted or adapted by most U.S. state mathematics standards, including the Massachusetts and the Minnesota mathematics standards. The purpose of this comparison was not to determine whether the two frameworks are identical but rather to examine the extent to which they reflect similar expectations for mathematical reasoning, problem-solving, communication, modeling, precision, and strategic use of tools.

Overall, the comparison indicates substantial overlap between the Utah Mathematical Practices and the SMP framework. Both frameworks emphasize mathematical reasoning, justification,

communication, strategic problem-solving, identification of patterns and structure, precision, and purposeful use of tools. The principal differences lie less in the underlying competencies themselves than in how those competencies are organized, framed, and emphasized. In several instances, the Utah framework broadens or reorganizes ideas that are distributed across multiple SMPs, while in other cases the SMP framework provides a more explicit emphasis on particular mathematical habits of mind. These differences represent alternative approaches to organizing mathematical proficiency rather than fundamentally different expectations for student learning.

Table 5 summarizes the alignment between Utah Mathematical Practices and the Standards for Mathematical Practice (SMPs) used by three of the benchmark systems. Because Utah reorganizes and reframes some mathematical practices differently than the benchmark systems, some Utah practices align with multiple SMPs and vice versa. Detailed comparisons of each mathematical practice follow this table.

Table 5. Utah Draft Mathematical Practices Alignment to Standards for Mathematical Practice

		Standards for Mathematical Practice (MA and MN)							
		SMP 1	SMP 2	SMP 3	SMP 4	SMP 5	SMP 6	SMP 7	SMP 8
Utah Mathematical Practices (MP)	MP 1	Not aligned							
	MP 2		Partially aligned						
	MP 3			Strongly aligned					
	MP 4				Partially aligned	Partially aligned			
	MP 5					Strongly aligned			
	MP 6	Partially aligned					Strongly aligned		
	MP 7							Partially aligned	
	MP 8	Partially aligned							Not aligned

Practice 1: Sense-Making versus Inquiry

The first Practice Standard (SMP) that occurs in nearly every state's standards ("Make sense of problems and persevere in solving them") is built around a problem-solving narrative: Students explain the meaning of a problem to themselves; look for entry points; plan a solution pathway; monitor and evaluate progress; change course if necessary; persevere when stuck; and check answers using a different method. (This practice is famously the "productive struggle" practice.)

In contrast, Utah's MP 1 ("Ask questions to explore mathematical ideas") centers around student-generated questioning. This is a substantial shift in intent, not merely a change in language. Most notably, the language found in other states' version of SMP 1—including "perseverance," "planning," "monitoring," and "checking"—is not present in Utah's MP 1 description. Some of the ideas found in SMP 1 appear in the general introduction to the Utah standards or are embedded in other Utah MPs—such as MP 6's reasonableness and MP 8's testing of conjectures—but the headline emphasis on planning, metacognition, perseverance, and persistence is absent in MP 1.

Practice 2: Contextualizing and Decontextualizing—Keeping the Literal Meaning but Lacking the Bigger Picture

The second SMP in most other states ("Reason abstractly and quantitatively") is specifically focused on the process of solving contextualized problems, often referred to as "word problems" or "story problems." This process involves two complementary mathematical skills: 1) decontextualizing—or abstracting a concrete situation by representing it symbolically and manipulating the symbols to arrive at a numerical or symbolic solution—and 2) recontextualizing, or pausing to probe the referents in the original problem during the manipulation and interpreting the numerical or symbolic answer in context. This requires both quantitative reasoning—or attending to what in a problem can be countered or measured and how those quantities are related—and abstract reasoning, or manipulating pure symbols without attending to their referents.

Utah's MP 2 ("Add or remove context to make sense of mathematics") keeps the literal meaning of decontextualizing and recontextualizing but not the reason behind why these two skills are important. It mentions the need for students to "flexibly move between concrete, pictorial, and abstract representations" and "move back and forth between a problem's context and its representation to use the form that best fits the situation," but the emphasis on the process of solving contextualized problems is notably absent. Instead, the standard says that "working in and out of context throughout a learning progression empowers students to make sense of mathematics and persevere as they examine abstract and real-world problems," which is not necessarily untrue but is vague and does not address with specificity why a student might need to work in and out of context when solving contextualized problems. Versions of MP 2 in different grade bands also reference assigning a context when working with noncontextualized

problems or ideas to better understand them, which does not appear in the version of SMP 2 that nearly all other states use.

Practice 3: Constructing Arguments—Close, With One Change in Emphasis

The version of SMP 3 that appears in most other states' standards ("Construct viable arguments and critique the reasoning of others") has two main pillars: 1) building one's own mathematical and logical arguments and 2) engaging critically with those of others. The "critique" element is explicit and prominent.

Utah's MP 3 ("Construct, justify, and communicate clear and reasonable arguments") keeps "construct" and also adds "justify" and "communicate," with grade-band descriptions emphasizing respectful agreement and disagreement. For example, in preschool, it states, "They develop strategies to agree and disagree respectfully. They begin to justify their arguments with evidence," and at the high school level, it reads, "construct arguments to distinguish between situations that can be modeled by various function types." While the overlap is strong, the explicit language around critiquing others' mathematical arguments is notably softer in the Utah Mathematical Practices. While the version that most states use of SMP 3 names "critique the reasoning of others" as a headline expectation, Utah folds the listening-and-disagreeing piece into grade-band descriptions. The substance is similar, but the visibility and emphasis differs.

Practice 4: Modeling—Utah Broadens the Meaning

The version of SMP 4 that appears in most other states' mathematics standards ("Model with mathematics") is unambiguously focused on applied modeling—using mathematical models to solve problems in everyday life, society, and the workplace; identifying important quantities; analyzing relationships; drawing conclusions; and revising the model if necessary. The "model" in this version of practice refers specifically to mathematical models, particular types of representations, usually symbolic, that can be used to make predictions about the situation they model. This definition is in line with the widely referenced definition from the Guidelines for Assessment and Instruction in Mathematical Modeling Education (GAIMME), which describes modeling as "a process that uses mathematics to represent, analyze, make predictions or otherwise provide insight into real-world phenomena" (Garfunkel & Montgomery, 2019, p. 8). This process is distinctive for its cyclic nature, where, starting from a real-world situation, students or modelers formulate a mathematical representation, work through it, and then return to the context to assess the model's validity and applicability.

In contrast, Utah's MP 4 ("Build and use models") broadens the definition of "model" to include not just **mathematical** models but also "verbal, contextual, visual ... and physical models." The description includes mathematical models and applied modeling but also explicitly broadens the practice to include a second meaning: "Students build and use models in two primary ways. One of these is to use models to connect mathematical concepts to one another. Another way

that students use models in high school is to model real-world phenomena.” The elementary versions of the practice indicate that “models” can also include manipulatives, area models, number lines, and base-ten blocks (objects that most other state standards would classify as “tools”).

This is the most consequential framing difference, since the verb phrase “Build and use models to ...” appears in hundreds of Utah content standards. This usage would not meet the definition of “modeling with mathematics” that is used in nearly all other states’ mathematical practices and in GAIMME; instead, “modeling with mathematics” would be considered “using appropriate tools strategically” to support representations and make meaning of mathematical ideas and objects. The risk is that the concept of “modeling” gets diluted; when so many standards begin with “Build and use models,” the disciplinary practice of applied modeling and using mathematical models, rather than physical or visual ones, can be neglected.

Practice 5: Use of Tools — Again, a Broadened Meaning

SMP 5, as it appears in most state standards (“Use appropriate tools strategically”), considers “tools” to be things like pencil and paper, concrete models, rulers, protractors, calculators, spreadsheets, statistical package, dynamic geometry software, and computer algebra systems. It also includes representations that students might use to help them solve a problem, such as number lines, tape diagrams, and graph sketches. The focus of the practice is on a student’s ability to consider the problem, make decisions about which tools are best for the job, and then use them strategically (rather than arbitrarily).

The spirit of Utah’s MP 5 is the same (“Select and use tools appropriately and strategically”), though the practice explicitly broadens the definition of “tool” to include not only physical, concrete, and representational tools but also mathematical techniques (e.g., completing the square, isolating x , the Zero Product Property) and bodies of mathematical knowledge (e.g., ratio reasoning, multiplicative thinking).

As with the verb phrase “Build and use models to...,” phrases involving the use of “tools” that refer to something other than physical tools or commonly used representations appear in hundreds of Utah content standards. As with the concept of “modeling,” there is a risk that by using the word “tool” so broadly, it could refer to virtually any mathematical idea, concept, or technique. As a result, its meaning is diluted to the point that it is no longer useful to educators, curriculum writers, and assessment designers.

Practice 6: Precision—Utah Adds “Reasonableness”

The version of SMP 6 that appears in most states’ mathematics standards (“Attend to precision”) focuses on precise language and precise definitions, along with careful use of symbols such as the equal sign, units of measure, and labeling axes. Additionally, it includes

calculating accurately and efficiently while expressing numerical answers with precision appropriate to the context.

Utah's MP 6 ("Attend to precision and reasonableness") broadens this description by including everything addressed by the more common version of SMP 6 and explicitly adding the idea of considering reasonableness: "They regularly evaluate whether actions, ideas, processes, and solutions make sense and are reasonable ... The continuous evaluation of reasonableness ensures that students improve their ability to identify and learn from mathematical errors." In the version of SMP 6 that appears in most states' standards, the idea of reasonableness is treated under SMP 1 as part of the problem-solving process in which students go back to the original problem and consider whether or not their solution makes sense given the context before accepting it and SMP 2, which contextualizes a solution during and after the problem-solving process to determine its actual meaning in the original problem.

Practice 7: Structure—Similar Concept; Utah Lacks Key Specificity

The version of SMP 7 that appears in most states' mathematics standards ("Look for and make use of structure") focuses on noticing the patterns that arise from mathematical structure and leveraging that structure to efficiently characterize mathematical objects and solve problems. For example, a student who understands the base-ten structure of numbers can mentally leverage that structure to efficiently solve a problem like 7×13 like so:

$$7 \times 13 = 7 \times (10 + 3) = 7 \times 10 + 7 \times 3 = 70 + 21$$

$$70 + 21 = 70 + (20 + 1) = (70 + 20) + 1 = 90 + 1 = 91$$

Looking for and making use of structure also means seeing mathematical objects as being constructed from other mathematical objects and considering the implications of that construction holistically to draw conclusions. For example, seeing $5 - 3(x - y)^2$ not just as a mathematical object in its own right but understanding it as $5 - 3 \times$ [some positive number] and thus $5 -$ [some positive number], and then concluding that the value of the entire expression can never be greater than 5.

Utah's MP 7 addresses a similar idea in many ways ("Describe and represent structures, patterns, and relationships") but lacks the specificity of the more common version of SMP 7 that makes it so powerful: "Students describe and represent structures, patterns, and relationships to make sense of mathematics ... They identify patterns and make connections across mathematical ideas." This description is quite vague and, as compared to the more common version, lacks a clear description of specifically how students can leverage mathematical structure to draw mathematical conclusions and solve problems more efficiently. Grade-level practice descriptions are similarly vague.

Practice 8: Regularity versus Conjecture, Test, and Evaluate

The version of SMP 8 that appears in most states' standards ("Look for and express regularity in repeated reasoning") invites students to notice when calculations are repeated; to look for general methods and shortcuts; and to abstract patterns into algebraic rules—all examples of mathematical regularity (which often arises from mathematical structure). A student might notice while carrying out long division that the calculations have become repeatable and conclude that the quotient is a repeating decimal. Or a student may say, "Every time, I am doubling and then adding five," and represent that regularity with a function like $y = 2x + 5$. At its heart, this version of SMP 8 is about abstracting from regularity to a general formula or method.

Utah's MP 8 ("Make conjectures and evaluate the results") has a different focus that is quite different from this more common version. This practice is reminiscent of the scientific method, inviting students to engage in mathematical investigations, "[using] their understanding of structures, patterns, and relationships to speculate about the nature of a relationship and then test their conjecture to determine how to proceed." Once again, in the more common version of SMP 8, this habit of mind is addressed by SMP 1 as part of the problem-solving process. The net effect is that the Utah Mathematical Practice trades the more common version's emphasis on algebraic generalization for an emphasis on conjecture-and-test investigation. While this aligns with Utah's data-science orientation, the cost is that the specifically algebraic habit of spotting regularity and leveraging it to generalize mathematically is no longer an emphasis.

Overall Comparison

Taken together, the comparison indicates that the Utah Mathematical Practices and the version of the SMPs that appear in most other states' standards reflect a mostly common vision of mathematical proficiency while organizing that vision in different ways. Both frameworks emphasize reasoning, communication, precision, strategic use of tools, modeling, and recognition of mathematical structure as essential components of mathematics learning.

The Utah version places comparatively greater emphasis on inquiry, conjecture, reasonableness, and broad use of representations, while the version that most other states use more explicitly emphasizes perseverance in problem-solving; abstract quantitative reasoning; mathematical modeling in authentic contexts; and recognizing regularity through repeated reasoning. These differences primarily reflect alternative organizational and instructional emphases rather than fundamentally different expectations for student learning. Overall, the comparison suggests that the Utah Mathematical Practices remain broadly consistent with nationally recognized conceptions of mathematical proficiency while reflecting several design decisions that distinguish the Utah practices from those adopted by most other U.S. states.

Conclusions

This report integrates findings from two complementary phases of WestEd’s independent review of the draft UCS-M. The first phase examined the standards relative to nationally and internationally recognized benchmark systems through standards-level crosswalks and domain-level comparisons. The second phase evaluated the standards themselves using a structured review process focused on measurability, clarity, instructional focus, mathematical rigor, DOK, developmental appropriateness, and the integration and appropriateness of the Utah Mathematical Practices. Together, these analyses provide a comprehensive evidence base for evaluating the overall quality of the draft standards.

Overall, the findings indicate that the UCS-M provide a strong and coherent framework for mathematics teaching and learning across the PK–12 continuum. The standards demonstrate substantial alignment with nationally recognized mathematics standards, place a strong emphasis on conceptual understanding and mathematical reasoning, and incorporate several distinctive features, including an expanded Data Science progression and explicit integration of the Utah Mathematical Practices, that distinguish them from many existing state mathematics standards. At the same time, the review identified recurring opportunities to improve the precision, clarity, developmental progression, and implementation of selected standards. These observations are intended to support continued refinement of the standards rather than fundamental redesign.

Overall Strengths of the UCS-M

Across both phases of the review, several consistent strengths emerged.

Strong Alignment With Nationally Recognized Mathematics Standards

The benchmark analyses found that the UCS-M are highly comparable to the Massachusetts Mathematics Curriculum Framework. More than 90 percent of K–8 standards and nearly all high school standards demonstrated strong or partial alignment with these benchmark systems, indicating broad agreement in the scope, progression, and organization of mathematical content. Although somewhat greater differences were observed relative to Minnesota and Singapore, these differences generally reflected alternative approaches to sequencing and emphasis of mathematical ideas rather than substantial differences in mathematical expectations.

Well-Balanced Mathematical Content

The standards reflect an appropriate balance of conceptual understanding, procedural skill, and mathematical application while maintaining instructional focus consistent with nationally

recognized mathematics standards. The review found that the standards appropriately prioritize the major work of each grade and emphasize conceptual understanding throughout the PK–12 progression. The distribution of DOK also reflects an appropriate progression from foundational knowledge in the early grades toward increasingly sophisticated reasoning in later grades.

Developmentally Appropriate Progression

The standards establish a generally coherent PK–12 progression of mathematical learning. A majority of the standards were rated as developmentally appropriate, with reviewers identifying relatively few concerns regarding the placement of mathematical content across grade levels. The benchmark comparisons similarly suggest that the overall progression closely reflects those found in nationally recognized mathematics standards with concepts and topics being introduced at about the same time, especially when compared to the Massachusetts standards.

Distinctive Emphasis on Data Science and Mathematical Practices

The review identified two particularly distinctive features of the Utah standards. First, the standards establish a comprehensive PK–12 progression in Data Science that extends beyond the traditional treatment of statistics found in many benchmark systems. Second, the explicit integration of the Utah Mathematical Practices throughout the content standards represents an innovative approach to embedding mathematical reasoning within content learning. Reviewers found that the Utah Mathematical Practices were generally well integrated into the standards and appropriately aligned with the mathematical expectations they accompany.

Opportunities for Refinement

Although the review identified many strengths, several recurring themes emerged across the standards review that present opportunities for further refinement.

Improve Clarity and Measurability of Selected Standards

The most consistent observations across reviewers were related to the clarity and measurability of some standards rather than any underlying issues with the mathematical content. Across grade levels, reviewers identified opportunities to improve measurability and clarity by replacing non-observable verbs with observable performance expectations; reducing ambiguity; simplifying unnecessarily complex or compound standards; and providing more precise descriptions of expected student performance. These issues were concentrated in a relatively small subset of standards and generally could be addressed through targeted wording revisions rather than substantive changes to mathematical content.

Continue Refining the Integration of Mathematical Practices

Reviewers found that the Utah Mathematical Practices were generally well integrated and appropriately aligned with the mathematical expectations they accompany. However, the review also found that embedded Mathematical Practice language frequently reduced the clarity or measurability of individual standards by making it less obvious what specific mathematical knowledge or skill students were expected to demonstrate. Future revisions may therefore benefit from considering how Mathematical Practice language can continue to reinforce mathematical reasoning while preserving clear, observable performance expectations.

Review Selected Developmental Progressions

The standards were generally found to be developmentally appropriate; however, reviewers identified a limited number of standards whose placement within the PK–12 progression may warrant additional consideration, in particular a subset of early-grade standards require relatively sophisticated reasoning. These observations represent targeted opportunities for refinement rather than broad concerns regarding the overall progression of the standards.

Consider Localized Benchmark Differences

Although the benchmark analyses demonstrated strong overall comparability with nationally recognized mathematics standards, they also identified localized differences in emphasis and placement. These include selected Geometry and Measurement topics; the sequencing of certain advanced secondary concepts; and Utah’s expanded treatment of Data Science. These findings do not suggest deficiencies in the UCS-M; rather, they provide additional context for policy decisions regarding the intended scope and sequencing of mathematics content.

Recommendations for USBE

Based on the evidence collected during this review, WestEd offers the following recommendations for USBE’s consideration.

1. **Preserve the overall structure and organization of the UCS-M.** The review found substantial alignment with nationally recognized mathematics standards and identified no evidence suggesting the need for major structural revisions to the standards.
2. **Prioritize targeted revisions to standards language.** Future revisions should focus primarily on improving the clarity, measurability, and accessibility of individual standards while preserving the underlying mathematical intent.
3. **Review selected standards identified through the developmental appropriateness analysis.** Particular attention may be given to the placement of a small number of early-grade standards where the expected level of reasoning may warrant reconsideration.

4. **Continue refining the implementation of the Utah Mathematical Practices.** The review supports maintaining the explicit integration of Mathematical Practices throughout the standards while considering opportunities to clarify how those practices are incorporated into individual content standards.
5. **Use the detailed analyst review worksheets as the primary resource for standards revision.** This report intentionally synthesizes findings across the review. Detailed, standard-specific observations—including reviewer comments, flagged issues, suggested revisions, recommended Mathematical Practices, and benchmark crosswalks—are documented in the accompanying analyst rating worksheets and benchmark crosswalk attachments. These materials provide the most appropriate foundation for any future standards revision process.

Final Remarks

Overall, the findings from this independent review suggest that the Utah Core Standards for Mathematics provide a high-quality foundation for mathematics instruction across the PK–12 continuum. The standards are broadly aligned with nationally recognized mathematics frameworks while incorporating several distinctive features that reflect Utah’s educational priorities, particularly in the areas of Data Science and the explicit integration of Utah Mathematical Practices. The opportunities for refinement identified throughout this review are concentrated primarily in the wording, sequencing, and implementation of selected standards rather than the overall design of the standards themselves. Consequently, the analyst review worksheets and benchmark crosswalks accompanying this report should be viewed as complementary resources that provide detailed, standard-level guidance for any future revisions undertaken by USBE.

References

- Allensworth, E., Cashdollar, S., & Gwynne, J. (2021). Improvements in math instruction and student achievement through professional learning around the Common Core State Standards in Chicago. *Aera Open*, 7, 2332858420986872.
- Burdman, P. (2015). *Degrees of Freedom: Varying Routes to Math Readiness and the Challenge of Intersegmental Alignment* (Report 2 of a 3-Part Series). Policy Analysis for California Education (PACE).
- Cardichon, J., Darling-Hammond, L., Yang, M., Scott, C., Shields, P. M., & Burns, D. (2020). *Inequitable Opportunity to Learn: Student Access to Certified and Experienced Teachers*. Learning Policy Institute.
- Charles, R. I., & Carmel, C. A. (2005). Big ideas and understandings as the foundation for elementary and middle school mathematics. *Journal of Mathematics Education*, 7(3), 9–24.
- Corkin, D. S., & Ekmekci, A. (2018, February). The impact of math teachers on student learning and motivation. In *Proceedings for the 46th Annual Meeting of the Research Council on Mathematics Learning* (p. 34). Research Council on Mathematics Learning.
- Fosnot, C. T., & Jacob, B. (2010). *Young mathematicians at work: Constructing algebra*. National Council of Teachers of Mathematics.
- Garfunkel, S., & Montgomery, M. (Eds.). (2019). *GAIMME—Guidelines for assessment & instruction in mathematical modeling education*. Society for Industrial and Applied Mathematics.
- Gutshall, C. A. (2016). Student perceptions of teachers' mindset beliefs in the classroom setting. *Journal of Educational and Developmental Psychology*, 6(2), 135–142.
- Hiebert, J., & Grouws, D. A. (2007). The effects of classroom mathematics teaching on students' learning. In F. K. Lester, Jr. (Ed.), *Second handbook of research on mathematics teaching and learning* (pp. 371–404). National Council of Teachers of Mathematics & Information Age Publishing.
- Hoge, D. M. (2016). *The relationship between teachers' instructional practices, professional development, and student achievement*.

- Kroeper, K. M., & Murphy, M. C. (2020). *Toward increasing equity and inclusion in mathematics classrooms: Exploring the potential of proactive confrontation in teacher-education*. OSF Preprints.
- Ma, L. (2010). *Knowing and teaching elementary mathematics: Teachers' understanding of fundamental mathematics in China and the United States*. Routledge.
- Osborne, M. C. (2021). Teacher instructional practices and student mathematics achievement. *Journal of Educational Research and Practice*, 11(1), 25.
- Priniski, S. J., & Thoman, D. (2020). Fostering an inclusively relevant mathematics environment: The case for combining social-justice and utility-value approaches. *Preprint*. *Open Science Framework*. <https://doi.org/10.31219/osf.io/wsx9d>.
- Yeager, D. S., Bryan, C. J., Gross, J. J., Murray, J. S., Krettek Cobb, D., HF Santos, P., ... & Jamieson, J. P. (2022). A synergistic mindsets intervention protects adolescents from stress. *Nature*, 607(7919), 512–520.
- Yu, R., & Singh, K. (2018). Teacher support, instructional practices, student motivation, and mathematics achievement in high school. *The Journal of Educational Research*, 111(1), 81–94.



Appendices

Appendix A. Rubrics Used for the Utah Standards Quality Review

Table A1. Rubric Used for Measurability and Specificity

Criteria & Description	Score	Indicators
<u>Measurability & Specificity:</u> Assess whether the standards are written in a way that allows for the development of clear assessment items	2—Measurable & well specified	The standard... - Clearly indicates what is expected of students. - Includes specific, low-inference performance expectations. - Includes an appropriate level of detail - Is not too broad or overly prescriptive.
	1—Partially measurable / well specified	- Aspects of the standard clearly indicate what is expected of students and include specific, low-inference performance expectations, while other aspects do not. - Aspects of the standard may be too broad or lacking in sufficient detail, or may be overly prescriptive.
	0—Not measurable or poorly specified	- It is not clear from the standard what is expected of students. - Performance expectations are not included or may be high inference. - The standard may be too broad or overly prescriptive.
	If a score of 1 or 0 is assigned, then the primary reason(s) measurability is reduced is flagged. One or more of the following flags will be assigned: Too vague; Too broad; Multiple expectations; Non-observable verb; Lacks performance expectation; Overly prescriptive; Poorly Specified; Other.	



Table A2. Rubric Used for Instructional Focus

Criteria & Description	Score	Indicators
Instructional Focus (K-8): Identify whether the standard addresses the "major work" of the grade; supporting work; additional work; or extraneous content.	Major work	The standard addresses the major work of the grade as defined by most US states.
	Supporting work	The standard addresses the supporting work of the grade as defined by most US states.
	Additional work	The standard addresses additional work of the grade as defined by most US states.
	Extraneous work	The standard does not address major, supporting, or additional work as defined by most US states.
Instructional Focus (High School): Identify whether the standard addresses 'widely applicable prerequisite; appropriate supporting work; or extraneous work for the grade level/course.	Widely applicable prerequisite	Standards that fall under the clusters, domains & conceptual categories considered widely applicable prerequisites for high school as defined by most US states.
	Appropriate supporting work	The standard addresses something that is not tagged as widely applicable prerequisites as defined by most US states, but seems appropriate for the course / grade level.
	Extraneous or inappropriate work	The standard either does not appear for most US states' high school standards in some form or seems inappropriate for the year/course.



Table A3. Rubric Used for Clarity and Accessibility

Criteria & Description	Score	Indicators
Clarity & Accessibility: Ensure the terminology is simple, concise, mathematically precise, and still accessible to educators and parents.	2—Clear and accessible	The standard... • Is understandable to key users such as teachers and curriculum directors • Is free of mathematical errors and imprecisions • Includes sufficient guidance to understand the PE • Uses language that most people can understand and is, as much as possible without sacrificing precision or rigor, free from jargon; any technical terms are appropriate for the grade level/course.
	1—Partially clear and accessible	• <u>Some aspects</u> of the standard are understandable to users, while other aspects could be confusing or ambiguous. • Mathematical errors or imprecisions may make aspects of the standard confusing. • <u>Some aspects</u> may need additional guidance to understand the PE. • <u>Some aspects</u> of the standard may include unnecessary jargon or technical language that is not appropriate for the course/grade level.
	0—Not clear and accessible	• Is <u>likely to be confusing</u> to key users like teachers and curriculum directors • Mathematical errors or imprecisions may make the standard confusing. • May lack sufficient guidance regarding the relevant content knowledge and math practices • May include unnecessary jargon that makes it difficult for the general public to understand.
	If a score of 1 or 0 is assigned, then the primary reason(s) clarity is reduced is flagged. One or more of the following flags will be assigned: Vague/ambiguous language; Jargon; Mathematical error/imprecise usage of mathematical term(s); Unclear grammar/typo(s); Insufficient guidance to understand PE; Other	



Table A4. Rubric Used for Depth of Knowledge

Criteria & Description	Score	Indicators
Depth of Knowledge: Evaluate the cognitive complexity required for students to successfully demonstrate the knowledge and skills described in a standard.	DOK 1 (Recall, reproduction, rote procedures)	The performance expectation in the standard requires only recall of information (such as a fact, definition, term, or simple procedure), performing a simple algorithm , or applying a formula .
	DOK 2 (Skills/Concepts)	The performance expectation in the standard requires the student to exercise judgment as to how to appropriately apply conceptual understanding. The task is still routine in nature, with a clear solution path.
	DOK 3 (Strategic Reasoning/ Evidence/ Justification)	The performance expectation in the standard is nonroutine , without a clear solution path; the student must engage in strategic thinking in order to explain, justify, evaluate, analyze, and so on.
	DOK 4 (Extended investigation/ Synthesis over time)	The performance expectation in the standard requires drawing on mathematical knowledge and understanding to engage in investigation , longer-term planning , and dealing with ambiguity , often over an extended period of time.
	Not Applicable	The standard does not include a clear performance expectation, so it is not possible to give a DOK rating.

Table A5. Rubric Used for Mathematical Rigor

Criteria & Description	Score	Indicators
Mathematical Rigor: Identify whether each standard addresses mathematical skills and procedures; conceptual understanding of a mathematical idea; and/or applications of a mathematical skill/procedure.	Procedural Skill / Fluency	The standard requires demonstrating a mathematical skill or procedure ; may or may not also require conceptual understanding or application.
	Conceptual Understanding	The standard requires demonstrating mathematical understanding that goes beyond demonstrating a skill or procedure ; while verbs are not 100% reliable for determining whether conceptual understanding is involved, such standards often include verbs like explain, justify, evaluate.
	Applications	The standard requires applying conceptual understanding and/or procedural skills to a real-world situation or context .
	None	The standard doesn't address procedural skills, conceptual understanding, or applications.



Table A6. Rubric Used for Developmental Appropriateness

Criteria & Description	Score	Indicators
Developmental Appropriateness: Ensure that each standard is developmentally appropriate for the grade level/course.	2—Developmentally appropriate	- The mathematical skill, idea, or application addressed by the standard is developmentally appropriate for the grade level/course. - The level of depth and complexity in which the performance expectations require students to engage with the content is developmentally appropriate for the grade level/course.
	1—Partially developmentally appropriate	Aspects of the mathematical skill, idea, or application addressed by the standard is developmentally appropriate for the grade level/course, while other aspects are not. - The level of depth and complexity in which parts of the performance expectations require students to engage with the content is developmentally appropriate for the grade level/course, while others are not.
	0—Not developmentally appropriate	- The mathematical skill, idea, or application addressed by the standard is not developmentally appropriate for the grade level/course. - The level of depth and complexity in which the performance expectations require students to engage with the content is not developmentally appropriate for the grade level/course.
	If a score of 1 or 0 is assigned, then the primary reason(s) developmental appropriateness is reduced is flagged, and then reviewed later for progression review. One or more of the following flags will be assigned: Prerequisite missing; Too early; Too late; Repeats without growth; Abrupt jump; Other.	

Table A7. Rubric Used for Integration and Appropriateness of Mathematical Practices

Criteria & Description	Score	Indicators
Math Practice Integration: Determine whether or not the MP(s) named in each standard are meaningfully integrated into the standard's performance expectation(s).	2—All named practices integrated	<u>All</u> practices explicitly named in the standard are meaningfully integrated into the standard and aligned with its performance expectations.
	1—Any named practices integrated	<u>At least one</u> of the practices explicitly named in the standard is meaningfully integrated into the standard and aligned with its performance expectations, but at least one is not .
	0—No practices integrated	<u>None</u> of the practices explicitly named in the standard are meaningfully integrated into the standard and aligned with its performance expectations.
	For scores of 1, the practice that is not meaningfully integrated will be identified.	
Math Practice Appropriateness/Alignment: Determine whether or not the MP(s) named in each standard are appropriate to the mathematical content of the standard.	2—All named practices appropriate	<u>All practices</u> explicitly named in the standard are appropriate to and aligned to the mathematical content of the standard.
	1—Any named practices appropriate	<u>At least one</u> of the practices explicitly named in the standard is appropriate to and aligned to the mathematical content of the standard, but at least one is not .
	0—No practices appropriate	<u>None</u> of the practices explicitly named in the standard are appropriate to and aligned to the mathematical content of the standard.
Additional Math Practices: Determine whether any MP(s) not named in the standard would be better aligned with the content or performance expectations in the standard.	Identify the practice(s) or mark "none".	

Appendix B. Illustrative tables Providing Specific Examples of Measurability and Clarity Concerns

Table B1. Illustrative Examples of Standards with Measurability Concerns Including Explanations and Suggested Revision

Standard Text	Rating	Explanation	Suggested Revision
P3.CC.2 —Begin to recognize that written numbers represent a quantity. Use a variety of <i>tools to build and model</i> numbers. (MP 4, 5)	0—Not measurable or poorly specified	Too broad; non-observable verb. “Begin to recognize that written numbers represent a quantity” is an internal, non-observable process. “Use a variety of tools to build and model numbers” is overly broad and poorly specified.	Identify what specific, observable behavior would indicate to a teacher that a student has begun to recognize that written numbers represent a quantity and reword the standard accordingly. Reword the second statement to make it clear what tools students should use to build and model numbers.
K.MG.2 —Describe structures of two-dimensional and three-dimensional shapes, including names and attributes, regardless of size or orientation. Describe their relative positions in the environment. (MP 7)	1—Partially measurable and/or well-specified	Multiple expectations. This standard includes two separate performance expectations that are difficult to assess well with a single performance. The first is focused on shape knowledge and geometry while the second is focused on spatial skills.	Separate these two performance expectations into two different standards.
1.MG.2 —Construct a reasonable argument about the order of three objects sorted by length. Compare the lengths of two objects indirectly using a third object and justify the results.	1—Partially measurable and/or well-specified	Poorly specified. Teachers and assessors will need to make an inference about what is and is not “reasonable” and perhaps even about what counts as an argument for this grade level.	The measurability issue here can be addressed by separating the standard into two separate standards and by simplifying the language: “a) Order three objects by length and justify the choice. b) Compare the lengths of two objects indirectly using a third object and justify the results.”

2.D.3—Analyze data sets and single-unit scale data visualizations using features such as titles, labels, and legends. <i>Ask questions</i> to make sense of the data. (MP 1)	1—Partially measurable and/or well-specified	Non-observable verb; too vague; multiple expectations. “Analyze” covers a great deal of ground and needs to be further specified. “Ask questions to make sense of the data” is also vague and high-inference and does not specify the type, quality, or purpose of the questions (e.g., comparison, interpretation, or inference). The phrase “make sense of the data” reflects an internal cognitive process, not a directly observable performance. The expectation also combines multiple skills (analysis + question generation), which makes it harder to assess with a single, focused performance.	Determine what, specifically, is meant by “Analyze data sets and single-unit scale data visualizations” and what observable behaviors a teacher or assessor would look for to determine proficiency. Determine what it means to “make sense of the data” in this situation and again what observable behaviors a teacher would be looking for. (While asking questions is an important mathematical behavior, it does not generally indicate proficiency with content.)
3.OA.6—Multiply and divide <i>flexibly, accurately, and efficiently</i>, with products, dividends, and divisors up to and including 100, and quotients up to and including 10. Know from memory all products of two one-digit numbers. (MP 6)	1—Partially measurable and/or well-specified	Poorly specified. “Flexibly” and “efficiently” are subjective and undefined, making them difficult to assess consistently without explicit criteria. Without further specification, teachers and item writers would be required to use their own judgment about what constitutes “flexibly” and “efficiently.”	Determine what, specifically, is meant by “flexibly” and “efficiently,” and what observable behaviors a teacher or assessor would look for to determine whether a students’ calculating counts as “flexible” and “efficient.”
4.MG.4—<i>Attend to precision and reasonableness</i> when measuring or sketching angles in whole-number degrees using a protractor. (MP 6)	0—Not measurable or poorly specified	Non-observable verb. “Attend to precision and reasonableness” is not a measurable behavior.	“Attend to precision and reasonableness” can be concisely captured by using a modifier such as “correctly” (e.g., “Correctly measure angles in whole-number degrees using a protractor, and correctly sketch angles of specified measure.”).



5.MG.3—<i>Build and use a model</i> of the coordinate plane to represent real-world problems. Understand the numbers in the coordinate pair indicate distance from the origin in the direction of the horizontal and vertical axes. Graph points in the first quadrant of the coordinate plane Interpret coordinate values based on a given context. (MP 2, 4)	1—Partially measurable and/or well-specified	Multiple expectations; non-observable verb. “Understand” is not an observable verb. The standard also seems to include up to four distinct PEs (building and using a model to represent real-world problems; understanding how coordinate pairs communicate distance from the origin; graph points in the first quadrant; interpret coordinate values in context).	a) Determine what observable behaviors would indicate that a student “Understand[s] the numbers in the coordinate pair indicate distance from the origin in the direction of the horizontal and vertical axes.” b) The measurability issues with this standard are compounded by clarity issues—specifically, the phrase “<i>Build and use a model</i> of the coordinate plane” is not mathematically clear or precise; this issue needs to be addressed first, before measurability can be addressed.
6.NS.3—<i>Attend to precision and reasonableness</i> when adding, subtracting, multiplying, and dividing multi-digit whole numbers and decimals <i>flexibly, accurately, and efficiently.</i> (MP 6)	0—Not measurable or poorly specified	Non-observable verb; poorly specified. “Attend to precision and reasonableness” is not a measurable behavior. “Flexibly” and “efficiently” are subjective and undefined, making them difficult to assess consistently without explicit criteria. Without further specification, teachers and item writers would be required to use their own judgment about what constitutes “flexibly” and “efficiently.”	a) Determine what, specifically, is meant by “flexibly” and “efficiently,” and what observable behaviors a teacher or assessor would look for to determine whether a students’ calculating counts as “flexible” and “efficient.” b) “Attend to precision and reasonableness” can be concisely captured by using a modifier such as “fluently” (e.g., “Fluently add, subtract, multiply, and divide multi-digit whole numbers ...”).
7.RP.7—<i>Interpret</i> the meaning of a point (x, y) on the graph of a proportional relationship in a given context. Connect and <i>interpret the relationship</i> between the points $(0, 0)$ and $(1, r)$ where r is the unit rate. (MP 4, 7).	1—Partially measurable and/or well-specified	Too vague. It is not clear what is meant by “connect ... the relationship between the points $(0,0)$ and $(1, r)$...”	The word “connect” can probably be removed altogether, for example: “<i>Interpret</i> the meaning of a point (x, y) on the graph of a proportional relationship in a given context. <i>Interpret the relationship</i> between the points $(0, 0)$ and $(1, r)$ where r is the unit rate. (MP 4, 7).”

8.D.1—Ask questions about bivariate data sets (quantitative and categorical) to investigate patterns of associations between two quantities. (MP 1)	1—Partially measurable and/or well-specified	Too vague; poorly specified. “Ask questions” is poorly specified in terms of quantity, quality, or type of questions. “Investigate patterns of associations” is broad and does not clearly define what evidence of investigation looks like. It is also unclear whether students will need to be able to both 1) ask questions that could be used to investigate and 2) to actually complete the investigation.	Determine specifically a) what patterns of associations, specifically, students should be investigating and how, and b) what mathematical behaviors a teacher or assessor would need to see in order to determine proficiency. (While asking questions is an important mathematical behavior, it does not generally indicate proficiency with content.)
S1.F.10/A1.BF.4—Use structures and patterns to identify the effect of k on the graph when replacing $f(x)$ by $f(x) + k$. Explore specific values of k for linear and exponential functions in and out of context. (MP 7)	1—Partially measurable and/or well-specified	Multiple expectations; non-observable verb; poorly specified. This standard includes two distinct performance expectations (PEs). The first is poorly specified in that it is not clear what structures and patterns a student should be using, or how. The second uses the non-observable verb “explore”; this sentence describes an activity which is better suited for classroom instruction than for assessment. It is not clear what knowledge or skill students are expected to show mastery of.	For the first PE, determine whether the expected performance is indeed the use of structures or patterns, or identifying the effect of k on the graph. If it is the first, specify which patterns and structures students should be using and how. If it is the second, the language “use structures and patterns to” can be removed. For the second PE, consider whether this statement belongs in the standards since it seems to be describing an instructional/ learning activity rather than a mastery behavior.
S2.NS.1/A1.NS.1—Extend understanding of the structure of integer exponent properties to rational exponents. (MP 8)	0—Not measurable or poorly specified	Non-observable verb; poorly specified. In order to be able to measure proficiency, we need to know what observable behavior would indicate “understanding” as well as what is meant by “extending” that understanding.	One possible way retain the substance of this standard while improving its specificity and identifying an observable behavior: “Explain how the meaning and properties of rational exponents follow from extending the properties of integer exponents, allowing for a notation for radicals in terms of rational exponents. For example, we define $5^{1/3}$ to be the cube root of 5 because we want $(5^{1/3})^3 = 5^{(1/3)3}$ to hold, so $(5^{1/3})^3$ must equal 5.”

S3.F.2/A2.F.2—*Build and use models* of periodic phenomena with sine and cosine functions that connect real world contexts with amplitude, frequency, and midline. *Use structures and patterns* to support understanding of a domain extended beyond 0 to 90 degrees, or 0 to $\pi / 2$ radians. (MP 4, 7)

0—Not measurable or poorly specified

Multiple expectations; non-observable verb; poorly specified. This standard includes two distinct PEs that are unlikely to be assessable with a single performance (“Build and use models of periodic phenomena ...” and “Use structures and patterns to support ...”). Because “model” is defined so broadly in MP 4 (essentially used as a synonym for “representation”), it is not clear what type of model or models are expected. “Support understanding” is also unobservable; it is not clear what specific behavior an educator or assessor would be looking for to determine proficiency.

Use sine and cosine to construct trigonometric functions that model real-world periodic phenomena, including amplitude, frequency, and midline. Explain in context what it means to extend the domain beyond 0 to 90 degrees, or 0 to $\pi / 2$ radians. (MP 4, 7)



Table B2. Illustrative Examples of Standards With Clarity Concerns Including Explanations and Suggested Revision

Standard Text	Rating	Explanation	Suggested Revision
P3.CC.2 —Begin to recognize that written numbers represent a quantity. Use a variety of <i>tools to build and model</i> numbers. (MP 4, 5)	1—Partially clear and accessible	Vague/ambiguous language. The phrase “begin to recognize” is imprecise and does not clearly define what level of understanding is expected. “A variety of tools” is broad and not specified, which may leave teachers and parents unsure of expectations.	This clarity issue is highly related to the measurability issue described above, so the recommendations are similar: a) Determine what level of understanding is expected in order to count as proficient, and b) what tools students should be using to build and model numbers, and how.
K.CC.8 —Use patterns and <i>structures</i> to subitize quantities up to 10. (MP 7)	1—Partially clear and accessible	Vague/ambiguous language. The term “subitize” is technical and may not be familiar to all users, especially parents. The phrase “patterns and structures” is abstract and does not clearly describe what students should do (e.g., recognizing groups like dots on a ten-frame or dice).	Rewrite in plain language and include more guidance around what it means to “use patterns and structures.” For instance, it could read as “Use spatial patterns to efficiently determine how many in a collection. For example, rather than counting one-by-one, determine that there are six dots in the pattern below by mentally breaking it into two rows of three.” 
1.D.1 —Determine a topic question and ask <i>investigative questions</i> that will lead to collecting, analyzing, and interpreting data within the context of the classroom. (MP 1)	1—Partially clear and accessible	Insufficient guidance to understand PE. The phrase “determine a topic question” is vague and may not clearly distinguish between a general topic and a specific question. “Investigative questions” is somewhat also abstract and may not be easily understood without examples.	Add examples to clarify for teachers, parents, and others what is meant by a “topic question” and “investigative questions.”

Standard Text	Rating	Explanation	Suggested Revision
2.OA.3 — <i>Describe and represent structures and patterns</i> to determine if a group of up to 20 objects has an odd or even number of items by pairing them or counting by twos. (MP 7)	1—Partially clear and accessible	Jargon; insufficient guidance to understand PE. The phrase “describe and represent structures and patterns” is abstract and does not clearly define what students should do. It is unclear what “structures and patterns” refers to in this specific context (e.g., pairs, leftover objects).	Since the language of the standard already includes “by pairing them or counting by twos,” the additional language at the front (“Describe and represent structures and patterns”) is repetitive and unnecessary. The PE would be much clearer left as “Determine if a group of up to 20 objects has an odd or even number of items by pairing them or counting by twos. (MP 7)”
3.OA.7 — <i>Build and use models</i> to solve two-step story problems involving whole numbers and having whole-number answers using the four operations, and attend to <i>the reasonableness</i> of answers. <i>Remove context</i> to represent situations as equations with a variable standing in for the unknown quantity. (MP 2, 4, 6)	1—Partially clear and accessible	Vague/ambiguous language. It may not be clear to teachers and parents what kinds of models students should be building and using to solve story problems. The phrases “attend to the reasonableness of answers” and “remove context” are also abstract and not clearly defined. In general, the statement is long and combines multiple expectations (modeling, solving problems, checking reasonableness, translating to equations). The inclusion of the language “Remove context” contributes to this issue and is repetitive.	This is another example of closely related measurability and clarity issues. The language can be simplified and clarified by specifying what types of models students should be using and by removing language that is repetitive (e.g., representing situations as equations with a variable <i>is</i> removing context, so “removing context” is not needed). For example, it could read, “Represent situations as equations with a variable standing in for the unknown quantity, and use these equations to solve two-step story problems with whole-number quantities and answers, using the four operations.”

Standard Text	Rating	Explanation	Suggested Revision
4.NF.5 —Build and use models to extend understanding of multiplication to fractions. Connect repeated addition to multiplication when multiplying a fraction by a whole number. Multiply a fraction by a whole number using numerical strategies. Solve problems involving multiplying a fraction by a whole number <i>in real world contexts</i> . (MP 2, 4)	1—Partially clear and accessible	Vague/ambiguous language. Students selecting and developing models with the intention of extending their understanding is not developmentally appropriate at grade 4. We suspect that this is not the intent of the standard, so the phrasing of “Build and use models to extend understanding of multiplication to fractions” is ambiguous. Some of the other language use in the standard is also confusing (e.g., “Connect repeated addition to multiplication when multiplying a fraction by a whole number”).	The word “apply” may be the most appropriate here, e.g., “Apply and extend previous understandings of multiplication to fractions: a) Explain why the fraction a or b is the product of a and the unit fraction $1/b$; b) Use properties of number and operation to find the product of a and $1/b$; and c) Solve real-world problems involving multiplying a fraction by a whole number.”
5.NBT.6 —Use efficient numerical strategies based on properties of multiplication and/or place value to multiply a whole number of up to four digits by a one digit whole number and to multiply two two-digit numbers <i>flexibly, accurately, and efficiently in real-world contexts and equations</i> . Determine if products are reasonable. (MP 2, 6)	1—Partially clear and accessible	Vague/ambiguous language. The terms “flexibly, accurately, and efficiently” are subjective, making the PE unclear without examples. Also, there is some redundancy about efficiency: “use efficient numerical strategies to multiply numbers efficiently”	A possible revision could be: “a) Find products of four-digit and single-digit integers using strategies based on place value and the properties of operations, and determine their reasonableness. b) Find products of two-digit integers using strategies based on place value and the properties of operations, and determine their reasonableness.”
6.NS.7 —Build and use models to develop the definition of absolute value. Work with absolute value in and out of context. (MP 2, 4)	1—Partially clear and accessible	Vague/ambiguous language; Insufficient guidance to understand the performance expectation. It is not clear what is meant by “Build and use models to develop the definition of absolute value.” “Work with absolute value” is also vague, ambiguous, and needs to be described in a more mathematically precise way.	Determine specifically what the performance expectation is for students. What does it mean to “Build and use models to develop the definition of absolute value”? Include that precise language in the standard. Similarly, clarify what is meant by “Work with absolute value” and include mathematically precise language in the standard to make it clear what is expected of students.

Standard Text	Rating	Explanation	Suggested Revision
7.D.1 —Formulate statistical investigative questions that anticipate variability in data collected from a random sample of a population. (MP 1)	1—Partially clear and accessible	Vague/ambiguous language. It may not be clear to teachers, parents, or others what is meant by “statistical investigative questions.”	Include examples to help teachers, parents, and others better understand what types of questions students are required to come up with in order to demonstrate proficiency.
8.NS.4 — <i>Justify</i> why sums and products of rational numbers are rational, that the sum of a rational number and an irrational number is irrational, and that the product of a nonzero rational number and an irrational number is irrational. <i>Build and use models</i> to connect to physical situations. (MP 3, 4)	1—Partially clear and accessible	Insufficient guidance to understand PE; Other. The standard is dense and combines multiple distinct expectations (proof/justification, properties of number systems, and modeling applications) in a single statement. While the mathematical meaning is precise, the phrasing requires unpacking for instructional and assessment use. In particular, “build and use models to connect to physical situations” is broad and does not specify what counts as an acceptable model or level of connection.	This standard could be rewritten as two standards, one of which has three subparts: 1) Explain a) why sums and products of rational numbers are rational, b) why the sum of a rational number and an irrational number is irrational, and c) why the product of a nonzero rational number and an irrational number is irrational (MP 3). 2) [A more specific version of the building and using models piece which makes the PE clear.] (MP 3, 4)
S1.G.2/G.CO.2 — <i>Construct and clearly communicate definitions</i> of the rigid transformations to show that these transformations are functions that take points in the plane as inputs and give corresponding points as outputs. (MP 3)	1—Partially clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE. The clause “ <i>Construct and clearly communicate definitions</i> of the rigid transformations” is mathematically imprecise and thus unclear, and so it is not clear what is expected of students.	We wonder if the intent was something like “Represent rigid transformations in the plane and use their definitions to show that these transformations are functions that take points in the plane as inputs and give other points as outputs.”

Standard Text	Rating	Explanation	Suggested Revision
S2.G.9/G.C.3 — <i>Describe and represent</i> , using similarity, the definition of a radian as the ratio of arc length to radius. Create a distinction between arc length and arc measure and be able to <i>attend to precisions</i> while relating each of these to radian measure or the formula for the area of a sector. (MP 6, 7)	1—Partially clear and accessible	Vague/ambiguous language; Insufficient guidance to understand PE; Unclear grammar/typo(s). The phrase "describe and represent" creates confusion here where the word "derive" would suffice (and is much clearer). "Create a distinction" is also unclear (vs for example "Explain the distinction"). "Attend to precisions" is both grammatically incorrect (typo?) and is unclear in terms of the precise PE.	Consider rewording the first PE to be clearer, for example: "Derive, using similarity, the definition..." For the second PE, determine the specific behavior that is expected of students (for example, is "Explain the distinction between..."). For the third PE, decide what specific, observable behavior is expected of student and reword accordingly.
S3.F.1/A2.F.1 — Understand and interpret the features of polynomial, radical or logarithmic functions represented graphically using interval notation and inequalities by applying and removing context. Focus on these key features: domain, range, intervals of increase and/or decrease, location of absolute maximum and/or absolute minimum, intercepts and end behavior. Build graphic models that satisfy given key features. (MP 2, 4)	1—Partially clear and accessible	Vague and ambiguous language; insufficient guidance to understand PE. The first sentence, "Understand and interpret the features of ... functions ... by applying and removing context," is unclear in terms of what it means, specifically, in terms of a PE for this standard. Part of this clarity derives from the measurability that arises from the non-observable verb "understand." The other part arises from the language "by applying and removing context." It is not clear specifically how applying or removing context supports understanding or interpreting features of functions.	Reflect on what mathematical knowledge, skill, or understanding is intended by the first sentence; then, determine precisely what observable evidence a teacher would be looking for to determine proficiency. The word "understand" very well may not be needed at all.



Standards: Algebra 1

Introduction

In high school the major works focus on learning to create, interpret, manipulate, and solve algebraic equations. Students develop an understanding of functions and learn how to compare and represent functions as defined by rates of change, multiple representations and building functions. Students will learn to define functions, describe their features and transformations. Students will understand, apply and prove congruence of similarity as defined in terms of geometric transformations. Students will also investigate statistical questions by creating a plan to collect data for a non-biased sample from a population for primary data or ask questions about how secondary data was collected and whether it is useful. They will analyze data using graphical displays and numerical summaries of the sample data and use the evidence from that analysis to answer the statistical question of interest.

In Algebra I instructional time should focus on three major works: (1) solving algebraic equations (linear, exponential and quadratic); (2) understanding, comparing and representing linear, exponential and quadratic functions; (3) describing characteristics of linear, exponential and quadratic functions.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In high school, students will formulate and ask questions to highlight the difference between various function types. Students will ask targeted questions about univariate data displays to explore mathematical ideas. Students will ask questions about the underlying structure of geometric objects revealed by geometric constructions.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In high school, students contextualize and decontextualize functions to interpret

their properties, connecting symbolic representations to meaningful situations. Students will interpret the features of a function represented graphically, numerically and symbolically by applying and removing a context. Students interpret the parts of an expression in context to make sense of the underlying structure of polynomial and rational expressions.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

In high school, students construct, justify, and communicate clear and reasonable arguments about reflection and rotational symmetries of parallelograms and regular polygons. Students construct, justify and communicate proof of the Pythagorean Theorem using triangle similarity. Students construct arguments to distinguish between situations that can be modeled by various function types. They will construct arguments to justify claims such as why exponential growth eventually surpasses linear, quadratic or the growth in any other polynomial function.

Mathematical Practice 4: Build and use models

In high school, students build and use models in two primary ways. One of these is to use models to connect mathematical concepts to one another. Another way that students use models in high school is to model real-world phenomena.

Students create and use verbal, contextual, visual, symbolic, and physical models to connect mathematical ideas and enhance their understanding. In high school students use these models to describe and represent patterns and relationships to compare function types and connect mathematical ideas between them.

To model real-world phenomena, students engage in *mathematical and statistical modeling* to represent, analyze, and predict real-world situations. In high school students use geometric shapes, their measures, and their properties to *model* real world objects and apply geometric methods to solve design problems.

Mathematical Practice 5: Select and use tools appropriately and strategically

In high school, students learn to select and leverage multiple types of tools while engaging in and applying mathematics. Opportunities to leverage tools include, but are not limited to, selecting appropriate algebraic tools to solve linear, exponential, or quadratic equations for a variable. Students select and use appropriate tools to build representations for various function types with and without technology. Students use mathematical ideas as a tool to validate the appropriateness and usefulness of a model.

Mathematical Practice 6: Attend to precision and reasonableness

In high school, students attend to precision and reasonableness when analyzing data to compare two or more distributions, which includes selecting appropriate graphical displays and analyzing measures of center and variability. Students will attend to precision and reasonableness when exploring associations between two quantitative variables, using tools like scatter plots and correlation to evaluate the reasonableness and strength of models. Students attend to precision of language and notation while constructing arguments and carefully evaluating the reasonableness of observed ideas and processes when exploring transformations of functions.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In high school, students describe the structures of linear and exponential expressions by identifying whole expressions being made up of parts, like terms and factors. Students describe and represent underlying structures to help define dilations and similar shapes, and then use these structures to solve problems. Students will use models to explore and describe attributes of the structure, patterns and relationships of inverses for various function types.

Mathematical Practice 8: Make conjectures and evaluate the results

In high school, students develop and assess conjectures as they form hypotheses and assess their validity when evaluating results derived from statistical analyses to answer investigative questions. Students will make conjectures about the reasonableness and strength of the model they choose to describe the association

between two quantitative variables. Students will develop, assess, and evaluate conjectures about properties of exponents for rational exponents.

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the Utah Mathematics Core Guides.

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Standards: Algebra 1

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Seeing Structure in Expressions (SSE)

Interpret the structure of expressions. Write expressions in equivalent forms to solve problems.

A1.SSE.1 - S1.A.1

Use the structure of linear expressions and exponential expressions with integer exponents to identify parts of the expression and interpret their meaning in context. *Interpret* complicated expressions (such as $P(1+r)^n$) by viewing one or more of their parts as a single entity. (MP 7)

A1.SSE.2 - S2.A.1

Use the structure of quadratic and exponential expressions by identifying parts of the expression and interpret in *context* (ie. Use vertex form of a quadratic to identify the maximum height of an object flying through the air). *Use algebraic tools* to produce equivalent forms that reveal different properties. (MP 2, 5, 7)

Creating Equations (CE)

Create equations that describe numbers or relationships. Limit these to linear and quadratic equations and inequalities and exponential equations. In the case of exponential equations, limit to situations requiring evaluation of exponential functions at integer inputs.

A1.CE.1 - S1.A.2

Build symbolic models of linear equations and inequalities, and use them to solve problems *in and out of context*. (MP 3, 4)

A1.CE.2 - S2.A.3

Build symbolic models of linear and quadratic equations and inequalities, and use them to solve problems *in and out of context*. (MF 3, 4)

A1.CE.3 - S1.A.3

Use algebraic properties of equality *as tools* to rearrange formulas to isolate a quantity of interest. (MP 5)

A1.CE.4 - S1.A.6

Interpret whether a solution of a system of linear equations and inequalities is viable or non-viable *using graphic and analytic models*. (Sk 2) *Use models* of systems of linear equations and inequalities to interpret whether a solution is viable or non-viable. (MP 4)

A1.CE.5 - S2.A.2

Use the operations of addition, subtraction and multiplication to *build* new linear and quadratic functions. (MP 4)

Reasoning with Equations and Inequalities (REI)

Understand solving equations as a process of reasoning and explain the reasoning. Solve equations and inequalities in one variable. Solve systems of equations. Build on student experiences graphing and solving systems of linear equations from middle school. Include cases where the two equations describe the same line - yielding infinitely many solutions - and cases where two equations describe parallel lines - yielding no solution. Represent and solve equations and inequalities

graphically. Extend the work of systems to include solving systems consisting of linear and one nonlinear equation.

A1.REI.1 - S1.A.4

Solve linear equations and inequalities *using algebraic tools*, starting from the assumption that a solution exists. *Communicate clear arguments* to justify if an equation does not have one unique solution. Interpret solutions *in and out of context* using both inequality and interval notation. (MP 2, 3, 5)

A1.REI.2 - S1.A.5

Solve systems of linear equations *using algebraic tools*. Understand and *justify* how equations are manipulated while maintaining the consistency of the system. (MP 3, 5)

A1.REI.3 - S1.A.7

Build and use graphic models to analyze and exactly or approximately solve systems of two linear equations as well as systems of one linear equation and one exponential equation in two variables and interpret their solutions. (MP 4)

A1.REI.4 - S1.A.8

Build and use models graphically to show the solutions to a linear inequality in two variables as a half-plane, and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes. (MP 4)

A1.REI.5 - S2.A.4

Select and use algebraic and technologic tools to strategically solve quadratic equations and inequalities in one variable. Algebraic tools include taking square roots, completing the square, the quadratic formula, and factoring. (MP 5)

A1.REI.6 - S2.A.5

Select and use algebraic and technologic tools to strategically solve a system of equations consisting of a linear equation and a quadratic equation in two variables. Algebraic tools, including factoring and the quadratic formula, should be used in

simpler cases, and technologic tools in more complicated cases. (MP 5)

Number System (NS)

Extend the understanding of integer exponents to encompass rational exponents and explore how this relationship can be used to see patterns, reason about, and solve real world problems. Extend the number system to include all complex numbers. Build on the understanding of operations of real numbers to include imaginary numbers. Emphasize the essential role of complex numbers in solving quadratic equations by satisfying the conditions for the Fundamental Theorem of Algebra.

A1.NS.1 - S2.NS.1

Extend *understanding of the structure* of integer exponent properties to rational exponents. (MP 8)

A1.NS.2 - S2.NS.2

Use the properties of exponents as *tools* to rewrite expressions involving radicals and rational exponents in equivalent forms. (MP 5)

A1.NS.3 - S2.NS.3

Construct arguments that verify, according to the Fundamental Theorem of Algebra, the solutions to any quadratic equation will always be numbers within the set of complex numbers and will have the form $a + bi$ where a and b are real numbers. (MP 3)

A1.NS.4 - S2.NS.4

Build and use models to solve quadratic equations with real coefficients that have complex solutions, rewriting $x^2 + 4$ as $(x + 2i)(x - 2i)$. (MP 4)

Interpreting Functions (IF)

Understand the concept of a linear or exponential function and use function notation. Recognize arithmetic and geometric sequences as examples of linear and exponential functions. Interpret linear or exponential functions that arise in applications in terms of a context. Analyze linear or exponential functions using different representations.

A1.IF.1 - S1.F.1

Construct and communicate clear arguments to justify whether a relation is a function. (MP 3)

A1.IF.2 - S1.F.2

Understand the structure of function notation, if f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x . The graph of f is the graph of the equation $y = f(x)$. (MP 7)

A1.IF.3 - S1.F.3

Evaluate functions for inputs in their domains and interpret statements that use function notation *in terms of a context*. (MP 2)

A1.IF.4 - S1.F.4

Build and use explicit and recursive equations to *model* arithmetic and geometric sequences using function notation. *Describe and represent* the domain of these models as a subset of the integers. (MP 4, 7)

A1.IF.5 - S1.F.5

Understand and interpret the features of a function represented graphically, numerically and symbolically using interval notation and inequalities by *applying and removing context*. Focus on these key features: domain, range, intervals of increase and/or decreasing, location of absolute maximum and/or absolute minimum, and intercepts. *Build graphic models* that satisfy given key features. (MP 2, 4)

A1.IF.6 - S2.F.5

Select and use algebraic tools to create different but equivalent forms of functions that highlight different properties of the function. *Contextualize and decontextualize* these functions to interpret these properties. (MP 2, 5)

A1.IF.7 - S2.F.2

Determine the average rate of change of a function over a closed interval while attending to precision and reasonableness. Connect the average rate of change

with *context* appropriately. (MP 2, 6)

A1.IF.8 - S2.F.3

Build graphic representations that show key features of quadratic, linear, exponential, absolute value and piecewise functions expressed symbolically. *Select and use appropriate tools* to model with and without technology. (MP 4, 5)

A1.IF.9 - S2.F.4

Compare and contrast the properties of quadratic, linear, exponential, absolute value and piecewise functions (represented in different ways), including zeros, extreme values, symmetry and percent rate, when appropriate. *Formulate and ask questions* to highlight the similarities and differences between function types. (MP 1)

Building Functions (BF)

Build linear, exponential, or quadratic functions that model a relationship between two quantities. Build new functions from existing functions.

A1.BF.1 - S1.F.8

Build a function that *models* linear or exponential relationships. Appropriately use explicit and recursive rules to model these relationships and translate between the two forms. (MP 4)

A1.BF.2 - S2.F.6

Build a function that *models* a quadratic relationship. Use *structures and patterns* to build an equation that models explicit reasoning, or a recursive process. *Attend to the precision* of notation and labeling while building and using these models. (MP 4, 6, 7)

A1.BF.3 - S1.F.9

Construct arguments that *use the structures and patterns* of relationships to connect arithmetic sequences to linear functions and geometric sequences to exponential functions. (MP 3, 7)

A1.BF.4 - S1.F.10

Use structures and patterns to identify the effect of k on the graph when replacing

$f(x)$ by $f(x) + k$. Explore specific values of k for linear and exponential functions in and out of context. (MP 7)

A1.BF.5 - S2.F.7

Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(x+k)$ by exploring specific values of k for quadratic and absolute value functions in and out of context. *Attend to precision* of language and notation while *constructing arguments* and carefully evaluate whether the ideas and processes observed during exploration are *reasonable*. (MP 3, 6)

A1.BF.6 - S1.F.11

Communicate clear and reasonable arguments to distinguish between situations that can be modeled with linear functions, exponential functions, or neither. Connect the *structure* of linear and exponential functions with their parameters, ($y=mx+b$, $y=b^x(a)$). *Justify* that a quantity increasing exponentially eventually exceeds a quantity increasing linearly. (MP 3, 7)

A1.BF.7 - S2.F.8

Communicate clear and reasonable arguments to distinguish between situations that can be modeled with quadratic, exponential, and linear functions. Interpret the *structure* of quadratic functions written in different forms with the features of their graphs. (MP 3 & 7)

Algebra 1 Extended Topics

Matrices

Perform operations on matrices and use matrices in applications. Solve systems of equations.

A1.M.1 - S1.M.1

Add, subtract, and multiply matrices of appropriate dimensions using *algebraic tools* for smaller matrices and *technology* for larger matrices. (MP 5)

A1.M.2 - S1.M.2

Use matrices to *represent* and manipulate data, e.g., to represent payoffs or incidences relationships in a network. Multiply matrices by scalars to produce new matrices and *make sense* of this product by connecting it *with and without a context*. (MP 2, 4)

A1.M.3 - S1.M.3

Communicate understanding that, unlike multiplication of numbers, matrix multiplication for square matrices is not a commutative operation, but still satisfies the associative and distributive properties. (MP 3)

A1.M.4 - S1.M.4

Communicate understanding that the zero and identity matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers. The determinant of a square matrix is nonzero if and only if the matrix has a multiplicative inverse. (MP 3)

A1.M.5 - S1.M.5

Use 2×2 matrices to *model* transformations of the plane, and *interpret* the absolute value of the determinant in terms of area. (MP 4, 7)

A1.M.6 - S1.M.6

Model a system of linear equations as a single-matrix equation in a vector variable. (MP 4)

A1.M.7 - S1.M.7

Solve systems of linear equations up to three variables using matrix row reduction and technology *as tools*. (MP 5)

A1.M.8 - S1.M.8

Find the inverse of a matrix if it exists *using technology or algebraic tools*, and use the inverse to solve systems of linear equations (using technology for matrices of dimensions 3×3 or greater). (MP 5)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of Algebra 1 students will be able to:

- Create and solve equations and inequalities. (A)
- Solve systems of equations and inequalities with pairs of linear equations and inequalities in two variables. (A)
- Create explicit and recursive equations to model arithmetic and geometric sequences. (F)
- Interpret key features of graphs that model relationships between two variables for linear, quadratic and exponential functions. (F)
- Build and interpret multiple representations of linear, quadratic and exponential functions. (F)
- Create and interpret equivalent forms of quadratic expressions to reveal different properties of interest. (A)
- Solve quadratic equations and inequalities. (A)
- Compare different representations for linear, exponential and quadratic functions. (F)

Standards: Geometry

Introduction

In high school the major works focus on learning to create, interpret, manipulate,

and solve algebraic equations. Students develop an understanding of functions and learn how to compare and represent functions as defined by rates of change, multiple representations and building functions. Students will learn to define functions, describe their features and transformations. Students will understand, apply and prove congruence of similarity as defined in terms of geometric transformations. Students will also investigate statistical questions by creating a plan to collect data for a non-biased sample from a population for primary data or ask questions about how secondary data was collected and whether it is useful. They will analyze data using graphical displays and numerical summaries of the sample data and use the evidence from that analysis to answer the statistical question of interest.

In Geometry instructional time should focus on three major works: (1) understanding and applying congruence as defined in terms of geometric transformations; (2) proving congruence and similarity in terms of geometric transformations; and (3) analyzing and interpreting data that can be used to answer statistical questions of interest related to comparing multiple distributions or exploring associations between two quantitative variables.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In high school, students will formulate and ask questions to highlight the difference between various function types. Students will ask targeted questions about univariate data displays to explore mathematical ideas. Students will ask questions about the underlying structure of geometric objects revealed by geometric constructions.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In high school, students contextualize and decontextualize functions to interpret their properties, connecting symbolic representations to meaningful situations. Students will interpret the features of a function represented graphically, numerically and symbolically by applying and removing a context. Students

interpret the parts of an expression in context to make sense of the underlying structure of polynomial and rational expressions.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

In high school, students construct, justify, and communicate clear and reasonable arguments about reflection and rotational symmetries of parallelograms and regular polygons. Students construct, justify and communicate proof of the Pythagorean Theorem using triangle similarity. Students construct arguments to distinguish between situations that can be modeled by various function types. They will construct arguments to justify claims such as why exponential growth eventually surpasses linear, quadratic or the growth in any other polynomial function.

Mathematical Practice 4: Build and use models

In high school, students build and use models in two primary ways. One of these is to use models to connect mathematical concepts to one another. Another way that students use models in high school is to model real-world phenomena.

Students create and use verbal, contextual, visual, symbolic, and physical models to connect mathematical ideas and enhance their understanding. In high school students use these models to describe and represent patterns and relationships to compare function types and connect mathematical ideas between them.

To model real-world phenomena, students engage in *mathematical and statistical modeling* to represent, analyze, and predict real-world situations. In high school students use geometric shapes, their measures, and their properties to *model* real world objects and apply geometric methods to solve design problems.

Mathematical Practice 5: Select and use tools appropriately and strategically

In high school, students learn to select and leverage multiple types of tools while engaging in and applying mathematics. Opportunities to leverage tools include, but are not limited to, selecting appropriate algebraic tools to solve linear, exponential,

or quadratic equations for a variable. Students select and use appropriate tools to build representations for various function types with and without technology. Students use mathematical ideas as a tool to validate the appropriateness and usefulness of a model.

Mathematical Practice 6: Attend to precision and reasonableness

In high school, students attend to precision and reasonableness when analyzing data to compare two or more distributions, which includes selecting appropriate graphical displays and analyzing measures of center and variability. Students will attend to precision and reasonableness when exploring associations between two quantitative variables, using tools like scatter plots and correlation to evaluate the reasonableness and strength of models. Students attend to precision of language and notation while constructing arguments and carefully evaluating the reasonableness of observed ideas and processes when exploring transformations of functions.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In high school, students describe the structures of linear and exponential expressions by identifying whole expressions being made up of parts, like terms and factors. Students describe and represent underlying structures to help define dilations and similar shapes, and then use these structures to solve problems. Students will use models to explore and describe attributes of the structure, patterns and relationships of inverses for various function types.

Mathematical Practice 8: Make conjectures and evaluate the results

In high school, students develop and assess conjectures as they form hypotheses and assess their validity when evaluating results derived from statistical analyses to answer investigative questions. Students will make conjectures about the reasonableness and strength of the model they choose to describe the association between two quantitative variables. Students will develop, assess, and evaluate conjectures about properties of exponents for rational exponents.

More details about the standards, including relevant vocabulary, representations

that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the Utah Mathematics Core Guides.

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Standards: Geometry

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Congruence (CO)

Experiment with transformations in the plane. Build on student experience with rigid transformations from earlier grades. Understand congruence in terms of rigid motions. Rigid motions are at the foundation of the definition of congruence. Reason from the basic properties of rigid motions (that they preserve distance and angle), which are assumed without proof. Rigid motions and their assumed properties can be used to establish the usual triangle congruence criteria, which can be used to prove other theorems. Make geometric constructions. Prove Geometric theorems. Encourage multiple ways of writing proofs, such as narrative paragraphs, flow diagrams, two-column format, and diagrams without words. Focus on the validity of the underlying reasoning while exploring a variety of formats for expressing that reasoning.

G.CO.1 - S1.G.1

Describe and represent the underlying structure of translations, rotations and reflections, in terms of angles, circles, perpendicular lines, parallel lines, and line segments. (MP 7)

G.CO.2 - S1.G.2

Construct and clearly communicate definitions of the rigid transformations to show that these transformations are functions that take points in the plane as inputs and

give corresponding points as outputs. (MP 3)

G.CO.3 - S1.G.3

Select and use tools to strategically perform rigid transformations. Attend to precision when identifying and describing the transformation or the sequence of transformations to determine whether or not two figures are congruent. Understand that the image created from a rigid transformation or a sequence of rigid transformations is congruent to the pre-image. (MP 5, 6)

G.CO.4 - S1.G.4

Construct and communicate clear and reasonable arguments about reflection and rotational symmetries of parallelograms and regular polygons. Use reflections and rotations to informally *justify* attributes of parallelograms including rhombus, rectangles and squares. (MP 3)

G.CO.5 - S1.G.5

Precisely construct geometric objects including equilateral triangle, rhombus, square, parallel line, perpendicular bisector, and angle bisector. *Communicate clearly* about the use of geometric construction tools and analyze the underlying structure of geometric objects as revealed by the tools. (MP 3)

G.CO.6 - S1.G.6

Construct, justify and communicate clear arguments that show how the criteria for triangle congruence (ASA, SAS, SSS) can be established using the definition of congruence in terms of rigid motions. (MP 3)

G.CO.7 - S1.G.7

Justify whether or not a quadrilateral has the attributes of a square, rectangle, rhombus or parallelogram. Connect the Pythagorean Theorem to the distance formula and utilize slope along with distance as a means for *justification*. (MP 3)

G.CO.8 - S2.G.1

Construct, justify and communicate clear and reasonable arguments to prove geometric theorems. Support refinement of reasoning *by asking questions*. Develop

flexibility in creating logical arguments and proofs of various formats, including: narrative paragraphs, flow diagrams, two-column format, and diagrams without words. (MP 1, 3)

Proofs should focus on:

- a. theorems about lines and angles; vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.
- b. theorems about triangles; measures of interior angles of a triangle sum to 180° ; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.
- c. theorems about parallelograms; opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals.

Similarity, Right Triangles, and Trigonometry (SRT)

Understand similarity in terms of similarity transformations. Prove theorems involving similarity. Define trigonometric ratios and solve problems involving right triangles.

G.SRT.1 - S2.G.2

Describe and represent the underlying structures and properties that define dilations and similar shapes. Use the structures and properties of dilation and similarity to solve problems. (MP 7)

G.SRT.2 - S2.G.3

Build and use models that include congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures. Construct, justify and communicate a clear and reasonable proof of the Pythagorean Theorem using

triangle similarity. (MP 3, 4)

G.SRT.3 - S2.G.4

Describe and represent side ratios in right triangles based upon the *underlying structure* of similarity. Connect consistency across similar right triangles to definitions of trigonometric ratios for acute angles. (MP 7)

G.SRT.4 - S2.G.5

Verify, justify and communicate the relationships that exist between trigonometric ratios and trigonometric identities. Keep the focus on the relationship between sine and cosine of complementary angles, the Pythagorean Identity, and the tangent ratio in terms of sine and cosine. (MP 3)

G.SRT.5 - S2.G.6

Flexibly, accurately, and efficiently use trigonometric ratios and the Pythagorean Theorem to solve *real-world and mathematical problems* that can be *modeled* with right triangles. (MP 2, 4)

Circles (C)

Understand and apply theorems about circles. Find arc lengths and areas of sectors of circles. Use this as a basis for introducing the radian as a unit of measure. It is not intended that it be applied to the development of circular trigonometry in this course.

G.C.1 - S2.G.7

Construct, justify and communicate a clear and reasonable argument that all circles are similar. *Connect the underlying structures* of similarity to relationships between angles, segments and arcs within circles. (MP 3, 7)

G.C.2 - S2.G.8

Describe and represent structures and patterns between inscribed angles, radii, and chords. Relationships include the relationships between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle. (MP 7)

G.C.3 - S2.G.9

Describe and represent, using similarity, the definition of a radian as the ratio of arc length to radius. Create a distinction between arc length and arc measure and be able to *attend to precisions* while relating each of these to radian measure or the formula for the area of a sector. (MP 6, 7)

G.C.4 - S2.G.10

Use structures and patterns to work with equations of circles, find different forms of the equations and different defining features of the circle, including the center, radius, and points located on the circle. Use right triangles with the same hypotenuse length, and the Pythagorean Theorem to derive the equation of a circle. (MP 7)

Geometric Measurement and Dimension (GMD)

Examine volume formulas and use them to solve problems.

G.GMD.1 - S2.G.11

Attend to precision and reasonableness with respect to area and volume formulas (circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone) by applying informal arguments about how area and volume scale under similarity transformations. When scale factor k is applied to a figure, area scales by k^2 and volume scales by k^3 . (MP 6)

G.GMD.2 - S3.G.1

Use geometric shapes, their measures, and their properties to *model* real world objects and solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost). *Use these models* to ask *targeted and probing questions* with respect to area and volume *in context*. (MP 1, 2, 4)

G.GMD.3 - S3.G.2

Apply concepts of density based on area and volume in *modeling* situations. (MP 4)

G.GMD.4 - S3.G.

Attend to precision and reasonableness while using volume formulas for cylinders, pyramids, cones, and spheres to solve problems. (MP 6)

Data Science (D)

Investigate and analyze situations with large data sets. Describe, represent, and interpret data on a single quantitative variable and on two quantitative variables and evaluate results. Use linear, exponential and quadratic functions as models. Identify ways to refine investigative questions, data collection, visualization, or analysis.

G.D.1 - S1.D.1

Ask statistical questions to investigate situations that can be explored using random samples from populations to make inferences about differences between two populations or associations between two quantitative variables. Explain and *justify* the distinction between correlation and causation. (MP 1, 3)

G.D.2 - S1.D.2

Select the appropriate statistical tools to create a data collection plan. Collect and organize primary data for the statistical investigative question of interest or determine the validity that the data collected is useful to answer the statistical question of interest when using secondary data. (MP 5)

G.D.3 - S1.D.3

Compare two or more distributions with *precision* by selecting graphical displays (dot plots, histograms, and modified box plots to show outliers) that highlight features of interest. Analyze data by comparing measures of center (mean and median) and measures of variability (range, inter-quartile range and standard deviation) that are appropriate for the shape (skew, symmetry, outliers, modes) of the data distribution. Recognize how standard deviation builds on the mean absolute deviation and is another measure of how data values vary in a distribution. (MP 6)

G.D.4 - S1.D.4

Analyze data to explore the association between two quantitative variables by using a scatterplot to determine and describe patterns of association such as clustering, positive or negative association, linear or nonlinear association, and effects of outliers. Use technology to find and interpret the correlation coefficient

and use it to assess the strength of the linear relationship. *Attend to precision and reasonableness* with calculations. (MP 6)

G.D.5 - S1.D.5

Analyze and use statistical evidence to *evaluate results* and answer statistical investigative questions about the differences between two or more population parameters. Identify ways to refine the question, data collection, visualization, or analysis. (MP 8)

G.D.6 - S1.D.6

Justify statistical reasoning to *evaluate results* from analyses to answer the statistical investigative question about associations between two quantitative variables. For scatter plots that suggest a linear association, represent the relationship with a line of best fit and use the model of the linear equation to solve problems, including interpreting the slope and intercept in the context of the data. *Justify* statistical reasoning and results to others in a variety of formats including verbal, written, and visual. (MP 3, 8)

G.D.7 - S2.D.1

Ask statistical questions to investigate linear, exponential, and quadratic associations between two quantitative variables. (MP 1)

G.D.8 - S2.D.2

Select the appropriate statistical tools to create a data collection plan. Collect and organize primary data to investigate the association between two variables and make conjectures. For secondary data, determine if data collected are useful to answer the statistical question of interest. (MP 5)

G.D.9 - S2.D.3

Analyze data to explore the association between two quantitative variables. Use scatter plots to determine and explain patterns of association. Use technology to find and interpret the correlation coefficient and *evaluate the reasonableness* and strength of the model used. Determine whether a linear, exponential or quadratic function is the most *reasonable* model for the data. (MP 6, 8)

G.D.10 - S2.D.4

Use the statistical evidence to *evaluate results* from analyses to answer questions about associations between two quantitative variables. Identify ways to refine investigative questions, data collection, visualization, or analysis. Represent the relationship with a curve of best fit and use the model of the equation to solve problems. *Justify* statistical reasoning and results to others in a variety of formats including verbal, written, and visual. (MP 3, 8)

Geometry: Extended Topics

Vectors

Represent and model with vector quantities. Perform operations on vectors.

G.V.1 - S2.V.1

Recognize vector quantities as having both magnitude and direction. *Represent* vector quantities by directed line segments, and use appropriate symbols for vectors and their magnitudes. (MP 7)

G.V.2 - S2.V.2

Find and *represent* the components of a vector by subtracting the coordinates of an initial point from the coordinates of a terminal point. (MP 7)

G.V.3 - S2.V.3

Add and subtract vectors and multiply a vector by a scalar. *Make sense* of the operations by connecting *with and without a context*. (MP 2)

G.V.4 - S2.V.4

Multiply a vector (regarded as a matrix with one column) by a matrix of suitable dimensions to produce another vector. Work with matrices as transformations of vectors. *Make sense* of this product by connecting it *with and without a context*. (MP 2)

G.V.5 - S2.V.5

Solve *real world and mathematical problems* involving velocity and other quantities that can be represented by vectors. (MP 2)

Conic Sections

Translate between the geometric description and the equation for a conic section.

G.CS.1 - S2.G.12

Derive the equation of a parabola given a focus and directrix. (MP 3)

G.CS.2 - S2.G.13

Derive the equations of ellipses and hyperbolas given the foci, using the fact that the sum or difference of distances from the foci is constant. (MP 3)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of Geometry students will be able to:

- Establish triangle congruence criteria which will be used to prove other theorems. (G)
- Describe the transformation or the sequence of transformations to prove two figures are congruent. (G)
- Use the definition of congruence and triangle congruence criteria to create logical arguments for geometric theorems. (G)
- Develop properties of segments and angles related to circles (G).
- Develop trigonometric ratios for sides of right triangles. (G)

- Describe, represent, and interpret data on a single variable and evaluate results. (D)
- Describe, represent, and interpret data on two quantitative variables and evaluate results. (D)

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Utah's Secondary Mathematics Pathways

The Algebra 2 course has been divided into two distinct parts to better meet the needs of every student in the state than what a single course can provide.

The first set of standards listed for Algebra 2 includes the mathematics that all students benefit from engaging with (Math for All). These standards are intentionally designed to build the core mathematical knowledge—specifically in algebra, functions, and data science—that ensures all students have the critical and essential skills necessary regardless of their plans after high school. The second part of Algebra 2 provides students and families with a choice that can better prepare them for their post-secondary aspirations.

The Intermediate Algebra Pathway is a traditional Algebra 2 course that prepares students for precalculus. It is intended for those interested in the same careers as the Calculus Pathway described below, who prefer a more measured pace before tackling advanced mathematics. This course strengthens the foundational algebra skills necessary to prepare students for AP Pre-Calculus or Math 1050/1060 in the subsequent year.

The Calculus Pathway is another option, designed specifically to prepare students for careers in business, biological and physical sciences, engineering and/or mathematics. This course focuses heavily on the core algebraic and trigonometric concepts necessary to equip students with the conceptual understanding and procedural skills necessary for the study of Calculus and other advanced mathematics and science courses. It is also aligned with the courses Utah Institutions of Higher Education (IHE) offer for the above majors, including Math 1050/1060 and Calculus (which can be taken concurrently enrolled or once the student reaches University). AP precalculus and AP Calculus courses are also aligned to this pathway.

The Data Science Pathway is the next available option, specifically designed to prepare students for careers in fields such as history, nursing, psychology and the social sciences. This course concentrates on the descriptive and statistical methods essential for understanding and interpreting data. It provides the foundation necessary for students to pursue concurrent enrollment in Stat 1040 or AP

Statistics.

The final option involves the creation of a new pathway that builds on the Math for All content towards another career goal. This pathway will eventually include math courses from a variety of CTE backgrounds, alongside the current Applied and Advanced Foundational courses currently acceptable as graduation requirements when a student opts out of Algebra 2. The vision going forward is that these Board-approved versions of Algebra 2 would replace the opt out provision currently in place for the Algebra 2 course.

LEAs across the state will have flexibility in how to design their schedules around these Algebra 2 courses, running them as full year experiences or two half year classes, depending on their needs. USBE staff will work with USHE and Utah Institutions of Higher Education to find further alignment and explore the possibility of extended versions of these Algebra 2 courses that would allow students to earn additional credit or gain access to accelerated coursetaking options upon completion.

What follows are the standards our writing committee has developed for the core pathways. The USBE Mathematics team will work with LEA math communities across the state over the next few years to develop further Algebra 2 course pathways related to the third option described above.

Standards: Algebra 2 (Math for All Students)

Introduction

In high school the major works focus on learning to create, interpret, manipulate, and solve algebraic equations. Students develop an understanding of functions and learn how to compare and represent functions as defined by rates of change, multiple representations and building functions. Students learn to define functions, describe their features and transformations. Students understand, apply and prove congruence of similarity as defined in terms of geometric transformations. Students also investigate statistical questions by creating a plan to collect data for a non-biased sample from a population for primary data or ask questions about how secondary data was collected and whether it is useful. They will analyze data using graphical displays and numerical summaries of the sample data and use the evidence from that analysis to answer the statistical question of interest.

The Algebra 2: Math for All Students standards are foundational content embedded within every Algebra 2 pathway. These standards are intentionally designed to build the core mathematical knowledge—specifically in algebra, functions, and data science—that ensures all students have the essential skills to access and succeed in any subsequent pathway.

This core foundation equips every student with the mathematical literacy necessary to be an informed and productive citizen.

In Algebra 2 instructional time should focus on four major works: (1) solving algebraic equations (polynomial, logarithmic, and radical); (2) understanding, comparing and representing functions - polynomial, exponential, logarithmic, and trig functions (sine and cosine); (3) describing characteristics of functions; (4) drawing and justifying conclusions from sample surveys, experiments, and observational studies.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In high school, students formulate and ask questions to highlight the difference between various function types. Students ask targeted questions about univariate data displays to explore mathematical ideas. Students ask questions about the underlying structure of geometric objects revealed by geometric constructions.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In high school, students contextualize and decontextualize functions to interpret their properties, connecting symbolic representations to meaningful situations. Students interpret the features of a function represented graphically, numerically and symbolically by applying and removing a context. Students interpret the parts of an expression in context to make sense of the underlying structure of polynomial and rational expressions.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

In high school, students construct, justify, and communicate clear and reasonable arguments about reflection and rotational symmetries of parallelograms and regular polygons. Students construct, justify and communicate proof of the Pythagorean Theorem using triangle similarity. Students construct arguments to distinguish between situations that can be modeled by various function types. They will construct arguments to justify claims such as why exponential growth eventually surpasses linear, quadratic or the growth in any other polynomial function.

Mathematical Practice 4: Build and use models

In high school, students build and use models in two primary ways. One of these is to use models to connect mathematical concepts to one another. Another way that students use models in high school is to model real-world phenomena.

Students create and use verbal, contextual, visual, symbolic, and physical models to connect mathematical ideas and enhance their understanding. In high school students use these models to describe and represent patterns and relationships to compare function types and connect mathematical ideas between them.

To model real-world phenomena, students engage in mathematical and statistical modeling to represent, analyze, and predict real-world situations. In high school students use geometric shapes, their measures, and their properties to model real world objects and apply geometric methods to solve design problems.

Mathematical Practice 5: Select and use tools appropriately and strategically

In high school, students learn to select and leverage multiple types of tools while engaging in and applying mathematics. Opportunities to leverage tools include, but are not limited to, selecting appropriate algebraic tools to solve linear, exponential, or quadratic equations for a variable. Students select and use appropriate tools to build representations for various function types with and without technology. Students use mathematical ideas as a tool to validate the appropriateness and usefulness of a model.

Mathematical Practice 6: Attend to precision and reasonableness

In high school, students attend to precision and reasonableness when analyzing data to compare two or more distributions, which includes selecting appropriate graphical displays and analyzing measures of center and variability. Students attend to precision and reasonableness when exploring associations between two quantitative variables, using tools like scatter plots and correlation to evaluate the reasonableness and strength of models. Students attend to precision of language and notation while constructing arguments and carefully evaluating the reasonableness of observed ideas and processes when exploring transformations of functions.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In high school, students describe the structures of linear and exponential expressions by identifying whole expressions being made up of parts, like terms and factors. Students describe and represent underlying structures to help define dilations and similar shapes, and then use these structures to solve problems. Students use models to explore and describe attributes of the structure, patterns

and relationships of inverses for various function types.

Mathematical Practice 8: Make conjectures and evaluate the results

In high school, students develop and assess conjectures as they form hypotheses and assess their validity when evaluating results derived from statistical analyses to answer investigative questions. Students make conjectures about the reasonableness and strength of the model they choose to describe the association between two quantitative variables. Students develop, assess, and evaluate conjectures about properties of exponents for rational exponents.

Standards: Algebra 2 (Math for All Students)

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Algebra (A)

Interpret the structure of expressions. Extend to polynomial expressions. Create equations and inequalities that describe relationships, using all available types of functions to create such equations. Understand solving equations as a process of reasoning and explain the reasoning. Represent and solve equations and inequalities graphically.

A2.A.1 - S3.A.1

Interpret polynomial expressions given in factored form or standard form that represent a quantity in terms of a context. *Represent* polynomial expressions by using *technological tools* to produce equivalent forms (standard or factored) that reveal different properties, and *interpret one or more of their parts as a single entity*. (MP 2, 5, 7)

A2.A.2 - S3.A.2

Create equations and inequalities in one variable to *model a context* and use them to solve problems. Include equations arising from linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, square root and cube root functions. (MP 3)

A2.A.3 - S3.A.3

For exponential models, express as a logarithm the solution to $f(t)=ab^{ct} = d$ where a , c , and d are numbers, and the base b is 2 or 10; evaluate the logarithm using *technological tools*. (MP 2)

A2.A.4 - S3.A.4

Solve an equation of the form $f(x)=c$ for a simple function f that has an inverse. *Use the attributes of inverse relationships* to write inverse expressions. Include linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, logarithmic, square root, and cube root functions. (MP7)

Functions (F)

Describe, represent, and analyze functional relationships and their features across different representations, contextualizing and interpreting function expressions in terms of the modeled situation. Build, refine, and assess models relating two quantities. Construct and compare linear, quadratic, polynomial, and exponential functions to solve problems. Model periodic behavior with sine and cosine functions.

A2.F.1 - S3.F.1

Understand and interpret the features of polynomial, radical or logarithmic functions represented graphically using interval notation and inequalities by *applying and removing context*. Focus on these key features: domain, range, intervals of increase and/or decrease, location of absolute maximum and/or absolute minimum, intercepts and end behavior. *Build graphic models* that satisfy given key features. (MP 2, 4)

A2.F.2 - S3.F.2

Build and use models of periodic phenomena with sine and cosine functions that connect real world contexts with amplitude, frequency, and midline. *Use structures*

and patterns to support understanding of a domain extended beyond 0 to 90 degrees, or 0 to $\frac{\pi}{2}$ radians. (MP 4, 7)

A2.F.3 - S3.F.3

Understand and interpret key features (period, midline and amplitude) of sine and cosine functions represented graphically. *Build graphic models* that satisfy the given key features. (MP 4)

A2.F.4 - S3.F.4

Build graphical representations that show key features of polynomial, square root, cube root, exponential, logarithmic, and trigonometric (sine and cosine) functions expressed symbolically. *Select and use appropriate tools* to graph, by hand for simple cases, and using technology for more complicated cases. (MP 4, 5)

A2.F.5 - S3.F.5

Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(x+k)$ by exploring specific values of k for polynomial, square root, cube root, exponential, logarithmic, and trigonometric functions in and out of context. *Attend to precision* of language and notation while *constructing arguments* and carefully evaluate whether the ideas and processes observed during exploration are *reasonable*. (MP 3, 6)

A2.F.6 - S3.F.6

Use the attributes of inverse relationships to build models (tables, graphs, verbal descriptions and equations) for the inverses of linear, exponential, and quadratic functions. (MP 4, 7)

A2.F.7 - S3.F.7

Determine which function type (polynomial, square root, cubic root, exponential, or trigonometric) best models a given real world context. (MP 4)

A2.F.8 - S3.F.8

Justify that a quantity increasing exponentially eventually exceeds a quantity increasing linearly or quadratically, or (more generally) as a polynomial function. (MP 3)

Data Science (D)

Use probability models to interpret data and compute probabilities of compound and conditional events. Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages using technology. Summarize, represent, and interpret data on a single categorical or quantitative variable. Draw and justify conclusions from sample surveys, experiments, and observational studies. Employ simulation to compute p-values and determine statistical significance.

A2.D.1 - S3.D.1

Describe and represent structures and patterns of data on two categorical variables. Attend to precision and reasonableness when summarizing categorical data in two-way frequency models, and construct, justify, and communicate clear and reasonable arguments about possible associations and trends in the data. (MP 3, 6, 7)

A2.D.2. - S3.D.2

Build and use probability models including organized lists, venn-diagrams, tree diagrams, and two-way tables to find or estimate probabilities of compound or conditional events. (MP 4)

A2.D.3 - S3.D.3

Use multiple representations as tools to describe and represent structure to build understanding of the addition rule, $P(A \cup B) = P(A) + P(B) - P(A \cap B)$. Understand the conditional probability of A given B as $P(A \cap B)/P(B)$. Interpret independence of A and B as saying that the conditional probability of B given A is the same as the probability of B. (MP 7)

A2.D.4 - S3.D.4

Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. *Select and use physical and/or tech tools to estimate areas under the normal curve. (MP 5)*

A2.D.5 - S3.D.5

Formulate statistical investigative questions that are either summary-based or comparative for surveys, observational studies, or experiments using primary and/or secondary data. Select *appropriate statistical tools* to develop a plan for data collection and analysis to address these questions. (MP 1, 5)

A2.D.6 - S3.D.6

Select appropriate statistical tools to implement a data collection plan for primary data related to an investigative question. When using secondary data, assess its validity and relevance to answering the question. *Construct an argument* justifying the chosen data collection method (survey, observational study or experiment). Understand and apply best practices for designing sample surveys, experiments, and observational studies. (MP 3, 5)

A.2.D.7 - S3.D.7

Attend to precision and reasonableness when summarizing and organizing collected data to answer an investigative question using tables, graphs, and numerical summary statistics. *Use models* from sample data to estimate population means or proportions. Employ simulation models for random sampling to determine approximate sampling distributions and compute p-values from those distributions. (MP 4, 6)

A2.D. 8 - S3.D.8

Use statistical evidence from the analyses to *evaluate results* and answer questions. Identify ways to refine investigative questions, data collection, visualization, or analysis. *Justify* outcomes or estimates of population characteristics, considering their plausibility compared to chance variation, in a variety of formats (verbal, written, visual). Communicate the interpretation of simulated p-values and determine statistical significance. (MP 3, 8)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide

interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of Algebra 2 (Math for All), students will be able to:

- Solve simple equations (square root, cube root and polynomial). (A)
- Understand, distinguish between and represent functions including polynomial, trigonometric, logarithmic, and inverse functions. (F)
- Interpret and analyze key features of linear, quadratic, exponential, polynomial, logarithmic and trigonometric functions (sine and cosine). (F)
- Use congruency, similarity and right triangle ratios to extend the domain of trigonometric functions (sine and cosine). (F)
- Compute probabilities for compound and conditional events and use them to interpret data. (D)
- Draw and justify conclusions from sample surveys, experiments, and observational studies. (D)

Standards: Algebra 2 (Intermediate Algebra Pathway)

Introduction

In high school the major works focus on learning to create, interpret, manipulate, and solve algebraic equations. Students develop an understanding of functions and learn how to compare and represent functions as defined by rates of change, multiple representations and building functions. Students learn to define functions, describe their features and transformations. Students understand, apply and prove congruence of similarity as defined in terms of geometric transformations. Students also investigate statistical questions by creating a plan to collect data for a non-biased sample from a population for primary data or ask questions about how secondary data was collected and whether it is useful. They will analyze data using graphical displays and numerical summaries of the sample data and use the evidence from that analysis to answer the statistical question of interest.

The Algebra 2 Intermediate Algebra Pathway is designed for students who plan to pursue college degrees in STEM and business fields (including engineering, physical and biological sciences, and mathematics) but prefer a more deliberate pace before advancing to Calculus.

This course concentrates on the essential foundational algebra concepts needed to build a strong mathematical base. It positions students for success in AP Pre-Calculus or College Algebra/Trigonometry the following academic year.

The Intermediate Algebra Pathway shares but does not encompass all standards from the Calculus Pathway course. As a result, some of the Intermediate Algebra Pathway standards are nonsequential. Standards with the prefix A2 represent standards from the *Algebra 2 Math for All Students* content. Standards with the prefix CA2 are specific to the Calculus Pathway course.

In the Algebra 2 Intermediate Algebra Pathway, instructional time should focus on four major works: (1) understanding, comparing, and representing polynomial and rational functions; (2) understanding, comparing, and representing exponential and

logarithmic functions; (3) understanding, and representing trigonometric functions; and (4) creating, interpreting, manipulating, and solving algebraic equations.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In high school, students formulate and ask questions to highlight the difference between various function types. Students ask targeted questions about univariate data displays to explore mathematical ideas. Students ask questions about the underlying structure of geometric objects revealed by geometric constructions.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In high school, students contextualize and decontextualize functions to interpret their properties, connecting symbolic representations to meaningful situations. Students interpret the features of a function represented graphically, numerically and symbolically by applying and removing a context. Students interpret the parts of an expression in context to make sense of the underlying structure of polynomial and rational expressions.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

In high school, students construct, justify, and communicate clear and reasonable arguments about reflection and rotational symmetries of parallelograms and regular polygons. Students construct, justify and communicate proof of the Pythagorean Theorem using triangle similarity. Students construct arguments to distinguish between situations that can be modeled by various function types. They will construct arguments to justify claims such as why exponential growth eventually surpasses linear, quadratic or the growth in any other polynomial function.

Mathematical Practice 4: Build and use models

In high school, students build and use models in two primary ways. One of these is

to use models to connect mathematical concepts to one another. Another way that students use models in high school is to model real-world phenomena.

Students create and use verbal, contextual, visual, symbolic, and physical models to connect mathematical ideas and enhance their understanding. In high school students use these models to describe and represent patterns and relationships to compare function types and connect mathematical ideas between them.

To model real-world phenomena, students engage in mathematical and statistical modeling to represent, analyze, and predict real-world situations. In high school students use geometric shapes, their measures, and their properties to model real world objects and apply geometric methods to solve design problems.

Mathematical Practice 5: Select and use tools appropriately and strategically

In high school, students learn to select and leverage multiple types of tools while engaging in and applying mathematics. Opportunities to leverage tools include, but are not limited to, selecting appropriate algebraic tools to solve linear, exponential, or quadratic equations for a variable. Students select and use appropriate tools to build representations for various function types with and without technology. Students use mathematical ideas as a tool to validate the appropriateness and usefulness of a model.

Mathematical Practice 6: Attend to precision and reasonableness

In high school, students attend to precision and reasonableness when analyzing data to compare two or more distributions, which includes selecting appropriate graphical displays and analyzing measures of center and variability. Students attend to precision and reasonableness when exploring associations between two quantitative variables, using tools like scatter plots and correlation to evaluate the reasonableness and strength of models. Students attend to precision of language and notation while constructing arguments and carefully evaluating the reasonableness of observed ideas and processes when exploring transformations of functions.

Mathematical Practice 7: Describe and represent structures, patterns, and

relationships

In high school, students describe the structures of linear and exponential expressions by identifying whole expressions being made up of parts, like terms and factors. Students describe and represent underlying structures to help define dilations and similar shapes, and then use these structures to solve problems. Students use models to explore and describe attributes of the structure, patterns and relationships of inverses for various function types.

Mathematical Practice 8: Make conjectures and evaluate the results

In high school, students develop and assess conjectures as they form hypotheses and assess their validity when evaluating results derived from statistical analyses to answer investigative questions. Students make conjectures about the reasonableness and strength of the model they choose to describe the association between two quantitative variables. Students develop, assess, and evaluate conjectures about properties of exponents for rational exponents.

Standards: Algebra 2 (Intermediate Algebra Pathway)

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Algebra (A)

Create equations that describe numbers or relationships, using all types of functions to create such equations. Interpret the structure of polynomial and rational expressions. Write expressions in equivalent forms to solve problems. Write expressions in equivalent forms to solve problems. Perform arithmetic operations on polynomials and understand the relationship between zeros and factors of polynomials. Rewrite rational expressions.

CA2.A.5 - CS3.A.5 (Extension of S3.A.2)

Create equations and inequalities in one variable to *model a context* and use them to solve problems. Include equations arising from polynomial, exponential, rational and radical functions. (MP 3)

CA2.A.6 - CS3.A.6 (Extension of S3.A.3)

For exponential models, express as a logarithm the solution to $f(t)=ab^{ct} = d$ where a , b , c , and d are numbers, $b>0$; evaluate the logarithm using *technological tools*. *Justify* and use the properties of logarithms to generate equivalent expressions, connecting them to the properties of exponents. (MP 2, 3)

CA2.A.7 - CS3.A.7

Understand the inverse relationship between exponents and logarithms. Use this *relationship* to solve problems involving exponents and logarithms. (MP 7)

CA2.A.10 - CS3.A.10

Add, subtract, multiply and divide polynomial and rational functions. *Justify* whether these operations result in new polynomial or rational functions. (MP 3)

CA2.A.11 - CS3.A.11

Identify zeros of polynomial functions *using algebraic tools*, including factoring or the Remainder Theorem. (MP 5)

CA2.A.12 - CS3.A.12

Expand and simplify polynomial sums, products, and powers using *structures and patterns*. (MP 7)

CA2.A.5 - CSS3.A.13

Solve compound inequalities in one variable, including absolute value inequalities *using algebraic or technological tools*. (MP 5)

Number System (NS)

Perform operations with complex numbers and represent them on the complex plane. Apply complex numbers to polynomial identities and equations, emphasizing their essential role in satisfying the Fundamental Theorem of Algebra.

CA2.NS.2 - CS3.NS.2

Using the Fundamental Theorem of Algebra, *construct arguments* that verify the solutions to polynomial equations will always be numbers within the set of complex numbers and will have the form $a + bi$ where a and b are real numbers. (MP 3)

CA2.NS.3 - CS3.NS.3

Find solutions for polynomials that are limited to integer coefficients *using algebraic or technological tools*. (MP 5)

Functions (F)

Analyze functional relationships and their features using different representations, contextualizing and interpreting function expressions in terms of the modeled situation. Build, refine, and compare polynomial and exponential models to solve problems. Build new functions from existing functions. Extend the domain of trigonometric functions using the unit circle. Model periodic phenomena with trigonometric functions.

CA2.F.9 - CS3.F.9 (Extension of S3.F.1)

Understand and interpret the features of polynomial, radical, rational or logarithmic functions represented graphically using interval notation and inequalities *by applying and removing context*. Focus on these key features: domain, range, intervals of increase and/or decreasing, location of absolute maximum and/or absolute minimum, intercepts, asymptotes, and end behavior. *Build graphic models* that satisfy given key features. (MP 2, 4)

CA2.F.10 - CS3.F.10 (Extension of S3.F.2)

Build and use models of periodic phenomena with trigonometric functions that connect real world contexts with amplitude, frequency, and midline. *Use structures and patterns* to support understanding of a domain extended beyond 0 to 90 degrees, or 0 to $\frac{\pi}{2}$ radians. (MP 4, 7)

CA2.F.11 - CS3.F.11 (Extension of S3.F.3)

Understand and interpret key features (period, midline and amplitude/asymptote)

of trigonometric functions represented graphically. *Build graphic models* that satisfy the given key features. (MP 4)

CA2.F.12 - CS3.F.12 (Extension of S3.F.4)

Build graphical representations that show key features of polynomial, radical, exponential, logarithmic, rational and trigonometric functions expressed symbolically. *Select and use appropriate tools* to graph, by hand for simple cases, and use technology for more complicated cases. (MP 4, 5)

CA2.F.13 - CS3.F.13 (Extension of S3.F.5)

Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, $f(x+k)$ by exploring specific values of k for polynomial, radical, exponential, logarithmic, rational, and trigonometric functions *in and out of context*. *Attend to precision* of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are *reasonable*. (MP 3, 6)

CA2.F.16 - CS3.F.16

Build a new function from a composition of functions that *models a relationship* between two quantities. (MP 4)

CA2.F.17 - CS3.F.17

Verify by composition that one function is the inverse of another function. *Build an invertible function* from a non-invertible function by restricting the domain. (MP 4)

Geometry/Trigonometry (G)

Apply geometric reasoning to real world modeling situations. Apply prior understanding of trigonometric ratios to all types of triangles using the Law of Sines and Cosines. Build and use the unit circle to extend the domain of trigonometric functions.

CA2.G.1 - CS3.G.4

Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles *with and without context*. (MP 2)

CA2.G.2 - CS3.G.5

Use special triangles as tools to construct the unit circle with degrees and radians. *Describe and represent patterns* in the unit circle and *use them as tools* to evaluate the trigonometric functions at multiples of $\frac{\pi}{4}$ and $\frac{\pi}{6}$. (MP 5, 7)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of Algebra 2 (Intermediate Algebra), students will be able to:

- Solve equations for all families of functions (A)
- Describe, represent and build polynomials, using zeros and factors. (A)
- Solve equations (rational and radical) as well as inequalities including compound inequalities. (A)
- Understand, distinguish between, and represent functions including polynomial, rational, trigonometric, logarithmic, and inverse functions. (F)
- Interpret and analyze key features of linear, quadratic, exponential, polynomial, rational, logarithmic and trigonometric functions. (F)
- Use congruence, similarity and right triangle ratios to work with the unit circle, and trigonometric identities. (F)

Standards: Algebra 2 (Calculus Pathway)

Introduction

In high school the major works focus on learning to create, interpret, manipulate, and solve algebraic equations. Students develop an understanding of functions and learn how to compare and represent functions as defined by rates of change, multiple representations and building functions. Students learn to define functions, describe their features and transformations. Students understand, apply and prove congruence of similarity as defined in terms of geometric transformations. Students also investigate statistical questions by creating a plan to collect data for a non-biased sample from a population for primary data or ask questions about how secondary data was collected and whether it is useful. They will analyze data using graphical displays and numerical summaries of the sample data and use the evidence from that analysis to answer the statistical question of interest.

The Algebra 2 Calculus Pathway is designed to establish the essential mathematical foundation for students pursuing college degrees in STEM and business fields, including engineering, physical and biological sciences, and mathematics.

The standards focus heavily on the core algebraic concepts necessary to equip students with the conceptual understanding and procedural skills necessary for the study of calculus and other advanced mathematics and science courses. Completion of this pathway directly prepares students for introductory concurrent enrollment Calculus, AP Pre-Calculus, AP Calculus, or IB Math courses.

Within each domain, the standard numbering begins where the *Algebra 2 Math for All Students* standards conclude. Standards with the prefix S3 represent standards from the *Math for All Students* content. Standards with the prefix CS3 are specific to the Calculus Pathway course.

In the Algebra 2 Calculus Pathway, instructional time should focus on five major works: (1) understanding, comparing, and representing polynomial and rational functions; (2) understanding, comparing, and representing exponential and logarithmic functions; (3) understanding and representing trigonometric functions; (4) creating, interpreting, manipulating, and solving algebraic equations; and (5)

understanding and representing parametric and polar functions.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In high school, students formulate and ask questions to highlight the difference between various function types. Students ask targeted questions about univariate data displays to explore mathematical ideas. Students ask questions about the underlying structure of geometric objects revealed by geometric constructions.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In high school, students contextualize and decontextualize functions to interpret their properties, connecting symbolic representations to meaningful situations. Students interpret the features of a function represented graphically, numerically and symbolically by applying and removing a context. Students interpret the parts of an expression in context to make sense of the underlying structure of polynomial and rational expressions.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

In high school, students construct, justify, and communicate clear and reasonable arguments about reflection and rotational symmetries of parallelograms and regular polygons. Students construct, justify and communicate proof of the Pythagorean Theorem using triangle similarity. Students construct arguments to distinguish between situations that can be modeled by various function types. They construct arguments to justify claims such as why exponential growth eventually surpasses linear, quadratic or the growth in any other polynomial function.

Mathematical Practice 4: Build and use models

In high school, students build and use models in two primary ways. One of these is to use models to connect mathematical concepts to one another. Another way that students use models in high school is to model real-world phenomena.

Students create and use verbal, contextual, visual, symbolic, and physical models to connect mathematical ideas and enhance their understanding. In high school students use these models to describe and represent patterns and relationships to compare function types and connect mathematical ideas between them.

To model real-world phenomena, students engage in mathematical and statistical modeling to represent, analyze, and predict real-world situations. In high school students use geometric shapes, their measures, and their properties to model real world objects and apply geometric methods to solve design problems.

Mathematical Practice 5: Select and use tools appropriately and strategically

In high school, students learn to select and leverage multiple types of tools while engaging in and applying mathematics. Opportunities to leverage tools include, but are not limited to, selecting appropriate algebraic tools to solve linear, exponential, or quadratic equations for a variable. Students select and use appropriate tools to build representations for various function types with and without technology. Students use mathematical ideas as a tool to validate the appropriateness and usefulness of a model.

Mathematical Practice 6: Attend to precision and reasonableness

In high school, students attend to precision and reasonableness when analyzing data to compare two or more distributions, which includes selecting appropriate graphical displays and analyzing measures of center and variability. Students attend to precision and reasonableness when exploring associations between two quantitative variables, using tools like scatter plots and correlation to evaluate the reasonableness and strength of models. Students attend to precision of language and notation while constructing arguments and carefully evaluating the reasonableness of observed ideas and processes when exploring transformations of functions.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In high school, students describe the structures of linear and exponential

expressions by identifying whole expressions being made up of parts, like terms and factors. Students describe and represent underlying structures to help define dilations and similar shapes, and then use these structures to solve problems. Students use models to explore and describe attributes of the structure, patterns and relationships of inverses for various function types.

Mathematical Practice 8: Make conjectures and evaluate the results

In high school, students develop and assess conjectures as they form hypotheses and assess their validity when evaluating results derived from statistical analyses to answer investigative questions. Students make conjectures about the reasonableness and strength of the model they choose to describe the association between two quantitative variables. Students develop, assess, and evaluate conjectures about properties of exponents for rational exponents.

Standards: Algebra 2 (Calculus Pathway)

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Algebra (A)

Analyze and interpret the structure and patterns of polynomial, rational and radical expressions, and rewrite them in equivalent form to simplify and solve problems. Construct and represent series, rational expressions, and higher-degree polynomials using zeros and factors. Use a variety of algebraic and technologic tools to solve rational, radical, and compound inequalities.

CA2.A.5 - CS3.A.5 (Extension of S3.A.2)

Create equations and inequalities in one variable to *model a context* and use them to solve problems. Include equations arising from polynomial, exponential, rational and radical functions. (MP 3)

CA2.A.6 - CS3.A.6 (Extension of S3.A.3)

For exponential models, express as a logarithm the solution to $f(t)=ab^{ct} = d$ where a , b , c , and d are numbers, $b>0$; evaluate the logarithm using *technological tools*. *Justify* and use the properties of logarithms to generate equivalent expressions, connecting them to the properties of exponents. (MP 2, 3)

CA2.A.7 - CS3.A.7

Understand the inverse relationship between exponents and logarithms. Use this *relationship* to solve problems involving exponents and logarithms. (MP 7)

CA2.A.8 - CS3.A.8

Model arithmetic and geometric series, including infinite geometric series algebraically, graphically, and numerically. (MP 4)

CA2.A.9 - CS3.A.9

Build and use expressions including sigma notation to represent the sum of a finite arithmetic or geometric series. (MP 4)

CA2.A.10 - CS3.A.10

Add, subtract, multiply and divide polynomial and rational functions. *Justify* whether these operations result in new polynomial or rational functions. (MP 3)

CA2.A.11 - CS3.A.11

Identify zeros of polynomial functions *using algebraic tools*, including factoring or the Remainder Theorem. (MP 5)

CA2.A.12 - CS3.A.12

Expand and simplify polynomial sums, products, and powers using *structures and patterns*. (MP 7)

CA2.A.13 - CS3.A.13

Solve compound inequalities in one variable, including absolute value inequalities *using algebraic or technological tools*. (MP 5)

Number System (NS)

Build on understanding of real numbers and quadratic equations to include complex solutions of polynomial equations and satisfy the conditions for the Fundamental Theorem of Algebra. Use and perform operations with imaginary and complex numbers and represent them on the complex plane.

CA2.NS.1 - CS3.NS.1

Represent addition, subtraction, and multiplication geometrically on the complex plane. Perform algebraic operations with complex numbers on the complex plane. (MP 7)

CA2.NS.2 - CS3.NS.2

Using the Fundamental Theorem of Algebra, *construct arguments* that verify the solutions to polynomial equations will always be numbers within the set of complex numbers and will have the form $a + bi$ where a and b are real numbers. (MP 3)

CA2.NS.3 - CS3.NS.3

Find solutions for polynomials that are limited to integer coefficients *using algebraic or technological tools*. (MP 5)

Functions (F)

Analyze functional relationships and their features using different representations, contextualizing and interpreting function expressions in terms of the modeled situation. Build, refine, and compare polynomial and exponential models to solve problems. Construct and use parametric and graphic models. Build new functions from existing functions. Extend the domain of trigonometric functions using the unit circle. Model periodic phenomena with trigonometric functions. Use inverse trigonometric functions to solve equations and inequalities.

CA2.F.9 - CS3.F.9 (Extension of S3.F.1)

Understand and interpret the features of polynomial, radical, rational or logarithmic functions represented graphically using interval notation and

inequalities by *applying and removing context*. Focus on these key features: domain, range, intervals of increase and/or decreasing, location of absolute maximum and/or absolute minimum, intercepts, asymptotes, and end behavior. *Build graphic models* that satisfy given key features. (MP 2, 4)

CA2.F.10 - CS3.F.10 (Extension of S3.F.2)

Build and use models of periodic phenomena with trigonometric functions that connect real world contexts with amplitude, frequency, and midline. *Use structures and patterns* to support understanding of a domain extended beyond 0 to 90 degrees, or 0 to $\frac{\pi}{2}$ radians. (MP 4, 7)

CA2.F.11 - CS3.F.11 (Extension of S3.F.3)

Understand and interpret key features (period, midline and amplitude/asymptote) of trigonometric functions represented graphically. *Build graphic models* that satisfy the given key features. (MP 4)

CA2.F.12 - CS3.F.12 (Extension of S3.F.4)

Build graphical representations that show key features of polynomial, radical, exponential, logarithmic, rational and trigonometric functions expressed symbolically. *Select and use appropriate tools* to graph, by hand for simple cases, and using technology for more complicated cases. (MP 4, 5)

CA2.F.13 - CS3.F.13 (Extension of S3.F.5)

Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, $f(x+k)$ by exploring specific values of k for polynomial, radical, exponential, logarithmic, rational, and trigonometric functions in and out of context. *Attend to precision* of language and notation while *constructing arguments* and carefully evaluate whether the ideas and processes observed during exploration are *reasonable*. (MP 3, 6)

CA2.F.14 - CS3.F.14

Define a curve parametrically, and *create a graphical model*. (MP 4)

CA2.F.15 - CS3.F.15

Build a new function from a composition of functions that *models* a relationship

between two quantities. (MP 4)

CA2.F.16 - CS3.F.16

Verify by composition that one function is the inverse of another function. *Build* an invertible function from a non-invertible function by restricting the domain. (MP 3, 4)

CA2.F.17 - CS3.F.17

Use inverse trigonometric functions to solve equations and inequalities *with and without a context*. Determine the *reasonableness* of solutions using *context*. (MP 2, 6)

Geometry/Trigonometry (G)

Apply geometric reasoning to real world modeling situations. Apply prior understanding of trigonometric ratios to all types of triangles using the Law of Sines and Cosines. Build and use the unit circle to extend the domain of trigonometric functions.

CA2.G.1 - CS3.G.4

Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles *with and without context*. (MP 2)

CA2.G.2 - CS3.G.5

Use special triangles as *tools* to construct the unit circle with degrees and radians. *Describe and represent patterns* in the unit circle and use them as *tools* to evaluate the trigonometric functions at multiples of $\frac{\pi}{4}$ and $\frac{\pi}{6}$. (MP 5, 7)

CA2.G.3 - CS3.G.6

Prove the addition and subtraction formulas for sine, cosine and tangent and use them *as tools* to solve problems. (MP 5)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in

future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of Algebra 2 (Calculus), students will be able to:

- Understand, distinguish between, and represent functions including polynomial, rational, trigonometric, logarithmic, and inverse functions. (F)
- Interpret and analyze key features of linear, quadratic, exponential, polynomial, rational, logarithmic, and trigonometric functions. (F)
- Use congruence, similarity, and right triangle ratios to work with the unit circle and trigonometric identities. (F)
- Describe, represent, and build polynomials using zeros and factors. (A)
- Solve equations (rational and radical) as well as inequalities including compound inequalities. (A)
- Perform operations with complex numbers. (NS)
- Apply trigonometric identities and inverse trigonometric functions in solving equations and inequalities. (F)

Standards: Algebra 2 (Data Science Pathway)

Introduction

In high school, the major works will focus on learning to create, interpret, manipulate, and solve algebraic equations. Students develop an understanding of functions and learn how to compare and represent functions as defined by rates of change, multiple representations, and building functions. Students learn to define functions and describe their features and transformations. Students understand, apply and prove congruence of similarity as defined in terms of geometric transformations. Students also investigate statistical questions by creating a plan to collect data for a non-biased sample from a population for primary data or ask questions about how secondary data was collected and whether it is useful. They will analyze data using graphical displays and numerical summaries of the sample data and use the evidence from that analysis to answer the statistical question of interest.

The Algebra 2 Data Science Pathway prepares students for a diverse range of college majors and careers that rely on understanding, interpreting, and communicating data. This includes fields like nursing, psychology, history, and the social sciences.

This course focuses on descriptive and statistical methods—the essential tools used to analyze, model, and draw insights from data. Completion of this pathway provides students with the foundational skills necessary to successfully enroll in introductory university statistics courses or AP Statistics.

Within each domain the standard numbering begins where the Algebra 2 *Math for All Students* standards conclude. Standards with the prefix *S3* represent standards from the *Math for All Students* content. Standards with the prefix *DS3* are specific to the Data Science Pathway course.

In the Algebra 2 Data Science Pathway instructional time should focus on five major works: (1) data acquisition and preparation; (2) exploratory data analysis; (3) computational thinking; (4) data driven decision making; and (5) model evaluation and validation.

These five pillars are the foundations of the mathematics students explore in the Data Science Pathway.

- Data Acquisition and Preparation:
 - Create usable datasets by collecting, filtering, cleaning, and scaling data, while prioritizing data privacy.
- Exploratory Data Analysis:
 - Describe patterns and variations within data by analyzing visualizations and identifying trends and features. Provide contextual interpretations of visual and numeric findings. Explore relationships between variables and formulate questions to guide further analysis.
- Computational Thinking:
 - Frame problems for computational solutions. Apply algorithmic thinking to decompose complex problems into manageable parts, enabling reuse of components across applications.
- Data-Driven Decision Making:
 - Build and apply models relevant to specific contexts for real-world applications. Critically evaluate the ethical implications of generalizations. Justify conclusions based on rigorous data analysis.
- Model Evaluation and Validation:
 - Assess the validity and potential bias of models. Consider the role of randomness in inference and computation. Evaluate the representativeness of data in relation to model validity. Distinguish between statistical significance and practical importance. Conduct hypothesis testing to validate findings.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In high school, students formulate and ask questions to highlight the difference

between various function types. Students ask targeted questions about univariate data displays to explore mathematical ideas. Students ask questions about the underlying structure of geometric objects revealed by geometric constructions.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In high school, students contextualize and decontextualize functions to interpret their properties, connecting symbolic representations to meaningful situations. Students interpret the features of a function represented graphically, numerically and symbolically by applying and removing a context. Students interpret the parts of an expression in context to make sense of the underlying structure of polynomial and rational expressions.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

In high school, students construct, justify, and communicate clear and reasonable arguments about reflection and rotational symmetries of parallelograms and regular polygons. Students construct, justify and communicate proof of the Pythagorean Theorem using triangle similarity. Students construct arguments to distinguish between situations that can be modeled by various function types. They construct arguments to justify claims such as why exponential growth eventually surpasses linear, quadratic or the growth in any other polynomial function.

Mathematical Practice 4: Build and use models

In high school, students build and use models in two primary ways. One of these is to use models to connect mathematical concepts to one another. Another way that students use models in high school is to model real-world phenomena.

Students create and use verbal, contextual, visual, symbolic, and physical models to connect mathematical ideas and enhance their understanding. In high school students use these models to describe and represent patterns and relationships to compare function types and connect mathematical ideas between them.

To model real-world phenomena, students engage in mathematical and statistical

modeling to represent, analyze, and predict real-world situations. In high school students use geometric shapes, their measures, and their properties to model real world objects and apply geometric methods to solve design problems.

Mathematical Practice 5: Select and use tools appropriately and strategically

In high school, students learn to select and leverage multiple types of tools while engaging in and applying mathematics. Opportunities to leverage tools include, but are not limited to, selecting appropriate algebraic tools to solve linear, exponential, or quadratic equations for a variable. Students select and use appropriate tools to build representations for various function types with and without technology. Students use mathematical ideas as a tool to validate the appropriateness and usefulness of a model.

Mathematical Practice 6: Attend to precision and reasonableness

In high school, students attend to precision and reasonableness when analyzing data to compare two or more distributions, which includes selecting appropriate graphical displays and analyzing measures of center and variability. Students attend to precision and reasonableness when exploring associations between two quantitative variables, using tools like scatter plots and correlation to evaluate the reasonableness and strength of models. Students attend to precision of language and notation while constructing arguments and carefully evaluating the reasonableness of observed ideas and processes when exploring transformations of functions.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In high school, students describe the structures of linear and exponential expressions by identifying whole expressions being made up of parts, like terms and factors. Students describe and represent underlying structures to help define dilations and similar shapes, and then use these structures to solve problems. Students use models to explore and describe attributes of the structure, patterns and relationships of inverses for various function types.

Mathematical Practice 8: Make conjectures and evaluate the results

In high school, students develop and assess conjectures as they form hypotheses and assess their validity when evaluating results derived from statistical analyses to answer investigative questions. Students make conjectures about the reasonableness and strength of the model they choose to describe the association between two quantitative variables. Students develop, assess, and evaluate conjectures about properties of exponents for rational exponents.

Standards: Algebra 2 (Data Science)

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Data Science (D)

Understand full data science cycle, focusing on processing, visualizing, and describing both categorical and quantitative data, including measures of center and variability. Build and validate statistical models (e.g., linear regression) and apply concepts like the Central Limit Theorem for statistical inference and hypothesis testing. Critically evaluate conclusions, emphasizing the role of random assignment, bias, and ethical, reproducible practices.

DA2.D.9 - DS3.D.9

Represent categorical and quantitative information in organized tables suitable for analysis. *Attend to precision* in data processing by filtering through logical statements, and transforming data with a detailed set of ordered tasks that are repeatable by others or a computer. (MP 6, 7)

DA2.D.10 - DS3.D.10

Describe univariate displays of large sets of data using technology. *Ask targeted questions* about the displays, including shape (skewed, symmetric), center, variability, and unusual outcomes. (MP 1)

DA2.11 - DS3.D.11

Describe and represent relationships between two quantitative variables. Create visual representations with or without technology, addressing strength, form, direction and unusual observations in the data. (MP 7)

DA2.12 - DS3.D.12

Build and use models to describe relationships between two continuous variables using linear regression. Explain which variable(s) should be used for prediction. *Construct reasonable arguments* for appropriate and inappropriate use of the model for practical decision making. (MP 3, 4)

D.A2.13 - DS3.D.13

Describe the relationship between the distribution of a population, the distribution of a sample, and a sampling distribution (e.g., the distribution of sample means). *Describe* sampling distributions through summary statistics, including the mean and the standard deviation. (MP 1)

D.A2.14 - DS3.D.14

Use the central limit theorem to *represent* the distribution of sample means of large data sets as a normal distribution. *Assess conjectures* about the population means based on the sample averages through probability calculations from the normal distribution. (MP 7, 8)

DA2.15 - DS3.D.15

Use statistical tools to validate the appropriateness and usefulness of a model, including visual and numeric assessments of model fit. Use hypothesis testing and simulation to *develop and assess conjectures* about the model. (MP 5, 8)

DA2.16 - DS3.D.16

Evaluate results reached from data analysis. Identify ways to refine investigative questions, data collection, visualization, or analysis. *Justify and communicate clear and reasonable* conclusions. (MP 3)

DA2.17 - DS3.D.17

Determine the appropriate scope of generalization based on the method of sampling. *Contextualize* the implications through data storytelling. (MP 2)

DA2.D.18 - DS3.D.18

Understand the role of random assignment in experiments and the implications for cause-and-effect interpretations. *Justify conclusions.* (MP 3)

DA2.D.19 - DS3.D.19

Construct reasonable arguments regarding the issues of data bias and confounding variables in observational studies and their implications for interpretation. (MP 3)

DA2.D.20 - DS3.D.20

Use precision in practices for handling large sets of data that enhance reproducibility and ensure ethical use, including descriptions of alterations, and understand when data may contain sensitive information. (MP 6)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of Algebra 2 (Data Science), students will be able to:

- Summarize collected data to answer investigative questions using tables, graphs, and numerical summary statistics. Transform data. (D)
- *Describe and represent structures and patterns of* data on two categorical variables, two quantitative variables, and for univariate data. (D)
- *Build and use models* to describe relationships between two continuous variables, including linear regression. Explain which variable(s) should be used for prediction. (D)
- *Develop and use models* from sample data to estimate population means or proportions. (D)
- *Describe* sampling distributions through summary statistics, including the mean and the standard deviation. Use the central limit theorem to *represent*

the distribution of sample averages as a normal distribution. (D)

- Use hypothesis testing and simulation to *develop and assess conjectures* about models. Evaluate appropriateness of models. (D)
- Evaluate results from data analysis. *Justify and communicate* conclusions, including appropriate scope of generalization, and *contextualize* the implications. (D)

1.16.25 Draft

Draft P-12 Utah Core Mathematics Standards

Step 11 Revision February 2026

Draft P-12 Utah Core Mathematics Standards

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Introduction

Utah's Core Mathematics Standards assist in opening doors of opportunity for all students. They set clear expectations and guide students through a focused and coherent progression of math concepts, considering age-level development and emphasizing proficiency of identified essential competencies. These standards establish a strong mathematical foundation in early grades that allows students to engage with complex mathematical concepts as they progress through secondary mathematics.

All students must have the opportunity to learn and meet high mathematics standards in order to understand and navigate the modern world. Engaging with mathematics helps students develop tools to analyze patterns, quantify relationships, and make informed decisions. Understanding mathematics provides students with skills that support success in college, career, and family life.

Mathematics plays a critical role in the development of cognitive abilities, significantly contributing to the architectural growth of a child's brain. Regarded as a unifying discipline, it assists students in a comprehensive understanding of the world around them. Additionally, it enhances logical reasoning, problem-solving abilities, and overall mental development.

The standards set grade-specific expectations but do not dictate curriculum or teaching methods, nor do they define the strategies necessary to meet diverse learners' needs ([53E-4-202](#)). Customized supports must be provided to ensure all learners have access to the grade-level content in *Utah's Core Mathematics Standards*.

Organization of the Standards

In Utah State Code [53E-4-202](#), the State Board is charged with establishing core standards for Utah Public Schools that identify the basic knowledge, skills, and competencies each student is expected to acquire or master as the student advances through the public education system. These basic knowledge, skills, and competencies increase in depth and complexity from year to year.

Strands

The *Utah Core Standards* are organized into *strands*, which represent significant areas of learning within content areas. In mathematics, the strands are organized by overarching themes but do not necessarily represent isolated topics. Mathematical concepts are connected across multiple strands and grade levels. The trajectory of the strands is designed to follow a logical learning progression.

Standards

Within each strand are *standards*. A standard articulates the knowledge and skills to be obtained by students. A standard represents the essential elements of the expected learning.

Utah Mathematical Practices

In each grade-level core, there is a collection of *Mathematical Practices*. Each skill is a fundamental mathematical practice that students build as they engage with mathematical content. The Practices are not written in hierarchical order, they are all important skills that students must engage in to build their mathematical understanding. To ensure students develop capacity with these skills, they have been embedded into every standard across all strands and can be *identified by the use of italic text*.

Although specific Mathematical Practices have been intentionally identified and connected to each standard, instruction and practice of other Mathematical Practices not referenced in an individual standard may be appropriate if other skills support student learning in mathematics learning experience.

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in future grade levels. The list of competencies is not exhaustive of every standard; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide additional instruction or interventions based on the standards that support these competencies to ensure students are proficient.

Shifts in the Standards

Changes in the standards were made to improve their consistency, clarity, and progression through the grade levels. These changes include:

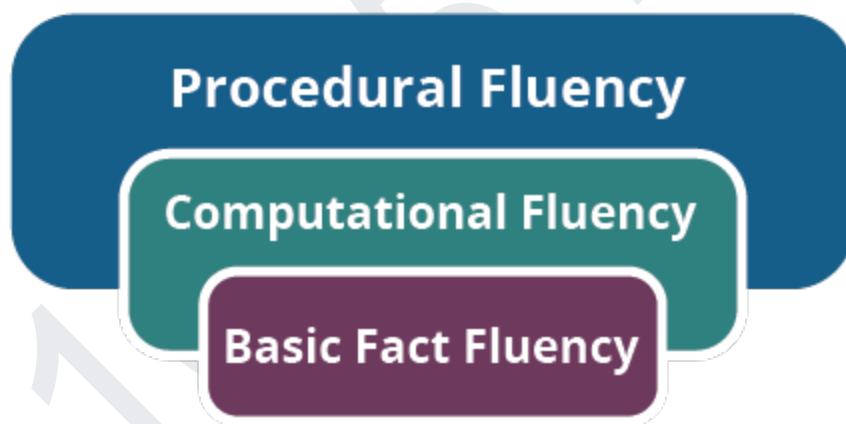
- Standards were clarified, and the overall number of standards was reduced.
- Mathematical Practices were identified and are highlighted throughout the standards P-12.
- Expectations were defined for the mathematical practices at each grade level.
- Essential Competencies were identified for each grade level specifying the success criteria associated with proficiently completing the major work of that grade level.
- Data Science standards were emphasized and incorporated into all grades.
 - The Data Science standards follow a cyclical structure where students iteratively model with mathematics by:
 - Asking statistical questions,
 - Collecting and exploring data,
 - Analyzing data,
 - And interpreting results
- In Secondary Math III, specific standards that are essential for all students were highlighted, and additional standards were developed to provide students and their families agency in choosing which math course pathways will best support their post-high school goals.

Building Conceptual Understanding & Procedural Fluency

These standards define what students should understand and be able to do in their study of mathematics. Throughout the progression of the Utah mathematics core standards, special attention was paid to ensuring that students develop a strong

foundation in conceptual understanding and procedural fluency. Procedural fluency is defined as the ability to apply procedures efficiently, flexibly, and accurately, transfer procedures to different problems and contexts, build or modify procedures from other procedures, and recognize when one strategy or procedure is more appropriate to apply than another. Student learning is supported when procedures and concepts are explicitly connected in ways that make sense to them. Conceptual foundations provide opportunities for students to develop reasoning strategies, which in turn deepens conceptual understanding and allows students to build procedural fluency.

Through the progression of the standards, students are provided opportunities to make sense of and build a conceptual understanding of the mathematical operations. This conceptual understanding supports children in becoming automatic in their retrieval of basic math facts. That basic fact fluency can then be applied as students develop computational and procedural fluency using a variety of numerical strategies and efficient algorithms.



Mathematical Tools and Technology

An excellent mathematics program integrates the use of mathematical tools and technology as resources to empower students to meet the learning intentions of the classroom. Software and online programs cannot replace authentic interactions between teachers and students, and the value of student-to-student discourse and collaboration. Technology and tools should be used in ways that promote mathematical reasoning and sense-making.

Utah Mathematical Practices

The mathematical practices included in *Utah's P-12 Core Mathematics Standards* describe mathematical skills that Utah students develop throughout their educational experiences. Students become proficient in engaging with mathematical content and concepts as they learn, experience, and apply these skills. Each grade level's standards have a description in their introductory material specifying the ways students will engage with these practices as they learn math concepts. Although specific Mathematical Practices have been intentionally identified and connected to each standard, instruction and practice of other Mathematical Practices not referenced in that standard are encouraged. Below, general descriptions are provided for each Mathematical Practice.

Descriptions of what the practices look like in each grade band are included in the grade level standards. More details about the practices and how they are integrated throughout the standards are included in each grade level's [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Mathematical Practice 1: Ask questions to explore mathematical concepts

Students examine mathematical concepts and formulate questions. During mathematical discourse, students ask probing questions to better understand math concepts.

Asking questions cultivates students' curiosity about mathematical relationships and helps them refine their understanding. As students build their capacity to ask probing questions, they engage in more meaningful discourse about mathematics. When students ask and explore rich questions, it advances the mathematical understanding of all learners.

Mathematical Practice 2: Add or remove context to make sense of mathematics

Students add or remove context to help make sense of mathematical concepts. Students add context by connecting numbers and operations to images, stories, objects, and events. They remove context from a situation by representing the mathematics using numbers, symbols, and equations.

When students contextualize and decontextualize mathematical concepts, they can make sense of underlying structures. Working in and out of context throughout a learning progression empowers students to make sense of mathematics and persevere as they examine abstract and real-world problems. This process allows students to take their knowledge of mathematics and meaningfully apply it to their lives.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

Students construct arguments using the mathematical reasoning that underlies a strategy, solution, or conjecture. They justify their conjectures and clearly communicate their reasoning using concrete referents such as objects, drawings, diagrams, and actions. They justify their arguments with peers through discourse, refining their thinking to create more robust and precise arguments.

Constructing, justifying, and communicating arguments fosters a deep understanding of mathematical concepts. By defending their conjectures, students solidify their mathematical understanding and identify potential flaws in their reasoning. Clear communication enables students to articulate their thoughts effectively, enhancing their ability to explain their reasoning to others. Discourse with peers exposes students to diverse perspectives, promoting critical thinking and collaborative problem-solving.

Mathematical Practice 4: Build and use models

Mathematical models use structures to represent relationships. Students build and use verbal, contextual, visual, symbolic, and physical models to represent and make sense of the relationships between quantities in real-world situations and mathematical problems.

Using models enhances student learning by providing students with multiple ways

to represent and understand mathematical concepts, connect mathematical concepts to real-world situations, and develop problem-solving skills. Students explore the idea that various models can showcase mathematical thinking in valuable ways. Using multiple models helps students notice the connections between mathematical structures and promotes the development of mathematical generalizations that can be leveraged as tools to make sense of and persevere in solving novel problems.

Mathematical Practice 5: Select and use tools appropriately and strategically

Students strategically select and use relevant and valuable tools for mathematical tasks with which they engage. Tools can be physical objects (e.g., compasses or manipulatives), technological tools (e.g. graphing calculators or virtual manipulatives) or mathematical constructs (e.g., diagrams, strategies, or algorithms).

Students consider the available mathematical problem-solving tools and choose the most relevant and useful ones. When students have the agency to select mathematical tools strategically, it empowers them to visualize, represent, and understand mathematical concepts effectively, fostering critical thinking, problem-solving flexibility, perseverance, and engagement.

Mathematical Practice 6: Attend to precision and reasonableness

Students exercise mathematical precision and reasonableness in their communication, calculations, and processes. They calculate flexibly, accurately, and efficiently, using clear and concise notation to record their work. They regularly evaluate whether actions, ideas, processes, and solutions make sense and are reasonable.

Precision in communication and calculation fosters a deeper understanding of mathematical concepts. Using precise language, students articulate their thoughts clearly, enhancing their ability to explain their reasoning to others and understand others' ideas. Accurate and efficient calculations and precise notation enable students to solve problems effectively and minimize errors. The continuous

evaluation of reasonableness ensures that students improve their ability to identify and learn from mathematical errors.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

Students describe and represent structures, patterns, and relationships to make sense of mathematics. While engaging in mathematical tasks, students use their understanding to make generalizations about the structure of numbers and become more flexible and efficient in applying mathematical concepts.

Students demonstrate these skills when they identify patterns and make connections across mathematical ideas. Analyzing these relationships allows students to bridge the gap between concrete observations and abstract reasoning.

Mathematical Practice 8: Make conjectures and evaluate the results

Students make sense of mathematics when they engage in mathematical investigations. They use their understanding of structures, patterns, and relationships to speculate about the nature of a relationship and then test their conjecture to determine how to proceed. As they test their mathematical hypotheses and evaluate the outcomes of their investigation, they build mathematical generalizations.

Developing and assessing conjectures encourages active engagement and critical thinking. Conjecturing acts as an entry point to exploration for all students. When making conjectures, students have opportunities to continually revise their thinking. Students formulate conjectures, test them, and refine their understanding based on the outcomes. Students view mistakes as assets that help them better refine their mathematical understanding. This process fosters a deeper understanding of underlying mathematical principles. It promotes curiosity, students' ownership of their learning, and the development of positive mathematical identities.

Standards: Preschool Age 3

Introduction

In Preschool Age 3 (P3) and Preschool Age 4 (P4), the major work of both grades focuses on developing an understanding of the foundational concepts of counting and cardinality and developing the ability to describe and compare measurable attributes of objects and shapes.

In P3, instructional time should focus on three major works: (1) developing concepts of counting and cardinality; (2) beginning to recognize simple patterns; and (3) beginning to describe shapes and objects. Quality learning environments focus on hands-on experiences during play and interaction with others to incorporate well-designed mathematical experiences aligned to specific learning goals.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In grades P-2, students ask questions to help them develop understanding of numbers, place value, the properties of addition and subtraction, and the properties of shapes. Students begin to ask questions about data related to the classroom and their day-to-day lives.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In grades P-2, students build an understanding of what the numbers, symbols, pictures, words, etc., in their work represent. Students develop flexibility in moving between concrete, pictorial, and abstract representations of mathematical ideas. They begin moving back and forth between a problem's context and its representation to use the form that best fits the situation.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

In grades P3 and P4, students are learning to communicate their ideas and listen to the ideas of others. They develop strategies to agree and disagree respectfully. Students begin to explain their ideas about mathematics.

Mathematical Practice 4: Build and use models

In grades P-2, students use a variety of models to build their understanding of numbers with increasing complexity, leading to an understanding of the base ten place value system. They model the actions and comparisons represented by the operations of addition and subtraction. Consistent exposure to these models supports fluency and helps students connect concrete experiences to foundational mathematical ideas.

Mathematical Practice 5: Select and use tools appropriately and strategically

In grades P-2, students use tools when they help them make sense of mathematics. Tools can include, but are not limited to, physical tools, visual tools, strategies, and algorithms. Consistent, hands-on practice with tools builds confidence and prepares students for flexible application.

Mathematical Practice 6: Attend to precision and reasonableness

In grades P-K, students use informal language as they develop and learn accurate mathematical vocabulary. They begin to learn strategies for assessing their accuracy when counting, naming numbers, and describing shapes.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In grades P-K, students explore patterns and structures in counting and with shapes. Students begin to develop understanding of the relationship between addition and subtraction using small numbers.

Mathematical Practice 8: Make conjectures and evaluate the results

In grades P-2, students make and test conjectures related to numbers, place value, the properties of addition and subtraction, and the attributes of shapes. During this

process, students learn to evaluate the reasonableness of their solution path and adjust as needed. Providing students opportunities to revise their thinking helps students develop confidence in problem solving.

Standards: Preschool Age 3 (P3)

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Counting and Cardinality (CC)

Identify numerals by name, count to 10, use one-to-one correspondence, describe quantities of objects counted, use ordinal language, and subitize.

P3.CC.1

Recite number names in sequence to 10, attending to *structure* and *precise language*. (MP 6, 7)

P3.CC.2

Begin to recognize that written numbers represent a quantity. Use a variety of *tools* to *build and model* numbers. (MP 4, 5)

P3.CC.3

Demonstrate one-to-one correspondence by *accurately* counting and pointing/touching a line of 1-5 objects. (MP 6)

P3.CC.4

Begin to use *accurate* number names to identify the number of objects in a group of up to 5 objects, recognizing that the last number in a count represents the total number of objects. (MP 6)

P3.CC.5

With support, identify whether the number of objects in one group is the same as those in another group for sets of up to 4 objects, using *precise mathematical language*. (MP 6)

P3.CC.6

Identify whether an object is "first" or "second" in a sequence by noticing ordinal structure. Begin to recognize ordering words in everyday *contexts*. (MP 2)

P3.CC.7

Subitize quantities up to 3 using *patterns and structures*. (MP 7)

Operations and Algebraic Thinking (OA)

Identify and explore simple patterns.

P3.OA.1

Describe and *model* simple *patterns* in the environment and begin to duplicate and extend those patterns. (MP 4, 7)

Measurement and Geometry (MG)

Identify and describe measurable attributes of basic shapes.

P3.MG.1

With prompting and support, identify and *describe* measurable attributes (e.g., big, small, tall, short). (MP 7)

P3.MG.2

With prompting and support, identify, *describe*, and *represent* basic shapes and their attributes. (MP 7)

Data Science (D)

Begin asking questions that lead to collecting and analyzing data by sorting and counting objects.

P3.D.1

With prompting and support, *ask questions* about people or objects in the classroom that lead to data collection. (MP 1)

P3.D.2

With prompting and support, collect and sort data or objects by attribute (color, shape, size, etc), and *build data models*. (MP 4)

P3.D.3

With prompting and support, *accurately* count the number of objects or data points in each category (no more than five objects per category). (MP 6)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the knowledge and skills embedded within the standards, by the end of P3, children will be able to:

- Count up to 5 objects in a set; then tell how many objects are in the set without counting again. (CC)
- Count to 10 by ones and recognize that numbers have a known sequence (e.g., “1, 2, 3, 4, 5. What comes next?”). (CC)
- Quickly recognize small groups of up to 3 objects without counting. (CC)
- Identify and describe basic shapes and their measurable attributes. (MG)
- Begin sorting and counting objects. (D)

Standards: Preschool Age 4

Introduction

In Preschool Age 3 (P3) and Preschool Age 4 (P4), the major work of both grades focuses on developing an understanding of foundational concepts of counting and cardinality and developing the ability to describe and compare measurable attributes of objects and shapes.

In P4, instructional time should focus on three major works: (1) reinforcing concepts of counting and cardinality; (2) exploring concepts of addition and subtraction; and (3) exploring and describing shapes, patterns, and measurable attributes of objects. Quality learning environments focus on hands-on experiences during play and interaction with others to incorporate well-designed mathematical experiences aligned to specific learning goals.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In grades P-2, students ask questions to help them develop understanding of numbers, place value, the properties of addition and subtraction, and the properties of shapes. Students begin to ask questions about data related to the classroom and their day-to-day lives.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In grades P-2, students build an understanding of what the numbers, symbols, pictures, words, etc., in their work represent. Students develop flexibility in moving between concrete, pictorial, and abstract representations of mathematical ideas. They begin moving back and forth between a problem's context and its representation to use the form that best fits the situation.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

In grades P3 and P4, students are learning to communicate their ideas and listen to the ideas of others. They develop strategies to agree and disagree respectfully. Students begin to explain their ideas about mathematics.

Mathematical Practice 4: Build and use models

In grades P-2, students use a variety of models to build their understanding of numbers with increasing complexity, leading to an understanding of the base ten place value system. They model the actions and comparisons represented by the operations of addition and subtraction. Consistent exposure to these models supports fluency and helps students connect concrete experiences to foundational mathematical ideas.

Mathematical Practice 5: Select and use tools appropriately and strategically

In grades P-2, students use tools when they help them make sense of mathematics. Tools can include, but are not limited to, physical tools, visual tools, strategies, and algorithms. Consistent, hands-on practice with tools builds confidence and prepares students for flexible application.

Mathematical Practice 6: Attend to precision and reasonableness

In grades P-K, students use informal language as they develop and learn accurate mathematical vocabulary. They begin to learn strategies for assessing their accuracy when counting, naming numbers, and describing shapes.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In grades P-K, students explore patterns and structures in counting and with shapes. Students begin to develop understanding of the relationship between addition and subtraction using small numbers.

Mathematical Practice 8: Make conjectures and evaluate the results

In grades P-2, students make and test conjectures related to numbers, place value, the properties of addition and subtraction, and the attributes of shapes. During this

process, students learn to evaluate the reasonableness of their solution path and adjust as needed. Providing students opportunities to revise their thinking helps students develop confidence in problem solving.

Standards: Preschool Age 4 (P4)

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Counting and Cardinality (CC)

Count to 20, recognize numerals, demonstrate one-to-one correspondence, compare quantities, use ordinal language, and subitize.

P4.CC.1

With support, *accurately* recite number names and the counting sequence to 20. (MP 6)

P4.CC.2

Associate quantities with written numerals up to 10. Begin to form numerals and use a variety of *tools* to represent quantities. (MP 5)

P4.CC.3

Demonstrate one-to-one correspondence by accurately counting and pointing to or touching one object per count for an arrangement of up to 10 objects. (MP 6)

P4.CC.4

Use *accurate* number names to identify the number of objects in a group of up to 10, recognizing that the last number in a count represents the total number of objects. (MP 6)

P4.CC.5

Use mathematical language to *accurately* identify whether the number of objects in one group is more than, less than, or the same as the number of objects in another group for sets of up to 6 objects. (MP 6)

P4.CC.6

Identify and state whether an object is "first," "second," "third," or "last" in a sequence. Begin to apply ordering words to everyday *contexts*. (MP 2)

P4.CC.7

Use *patterns* and *structures* to subitize quantities of up to five. (MP 7)

Operations and Algebraic Thinking (OA)

Identify and manipulate simple patterns and model addition and subtraction problems involving numbers up to and including 5.

P4.OA.1

Build and use models to represent real-world situations involving addition (adding to or putting together) and subtraction (taking from or taking apart) with numbers up to and including 5. (MP 4)

P4.OA.2

Decompose numbers less than or equal to five *using a variety of models* and explain why a number or set of objects can be broken apart in multiple ways. (MP 4, 8)

P4.OA.3

Select and use tools to model sums of 5 using quantities from 0–5. (MP 4, 5)

P4.OA.4

Create, duplicate, and extend simple *patterns*. (MP 7)

Measurement and Geometry (MG)

Identify, describe, build, and compare basic shapes. Describe their measurable attributes.

P4.MG.1

Describe measurable attributes of objects using *accurate* vocabulary (e.g., length [long/short], weight [heavy/light], size [big/small], and distance [near/far]). (MP 6)

P4.MG.2

Compare measurable attributes of objects by *making and testing conjectures*. Directly compare two objects, using measurable attributes to *justify* the comparison. (MP 3, 8)

P4.MG.3

Identify, *describe, and represent* two- and three-dimensional shapes. Describe attributes of two dimensional shapes including size, number of sides, and number of corners. (MP 7)

P4.MG.4

Use names of shapes to describe objects in the environment. Identify the relative positions of these objects *accurately* using terms such as above, below, beside, in front of, behind, and next to. (MP 6)

P4.MG.5

Create basic shapes using a *variety of tools*. With support, combine basic shapes to create new shapes. (MP 5)

P4.MG.6

Recognize patterns in activities that occur during different times of day including morning, afternoon, and night. (MP 7)

Data Science (D)

Ask questions that lead to collecting, analyzing, and interpreting data by sorting and counting objects.

P4.D.1

With prompting and support, *ask questions* about a given topic that lead to

collecting, analyzing, and interpreting data gathered within the classroom. (MP 1)

P4.D.2

Collect and sort data or objects organized by attribute (color, shape, size, etc). With prompting and support, *build data models*. (MP 4)

P4.D.3

With prompting and support, analyze data by *accurately* counting the number of objects or data points in each category. (MP 6)

P4.D.4

With prompting and support, interpret data to identify and *justify* which groups contain more, less, or the same amount. (MP 3)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of P4, children will be able to:

- Count up to 10 objects in a set, then tell how many objects are in the set without counting again. (CC)
- Begin to connect number names and quantities with written numerals. (CC)
- Count to 20. (CC)
- Quickly recognize groups of up to 5 objects without counting. (CC)
- Model addition and subtraction with numbers up to and including 5 using concrete objects, fingers, movements, and simple drawings. (OA)

- Identify, describe, build, and compare basic shapes using their measurable attributes. (MG)
- Begin interpreting data when sorting and counting objects. (D)

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Standards: Kindergarten (K)

Introduction

In kindergarten through second grade, the major work of each grade focuses on developing an understanding of addition and subtraction and building an understanding of the base-ten place value number system. Students begin to develop an understanding of foundational concepts of linear measurement and explore the defining attributes of shapes.

In kindergarten, instructional time should focus on three major works: (1) mastering concepts of counting and cardinality; (2) representing, relating, and operating on whole numbers, initially with sets of objects; and (3) describing shapes and space. More learning time in kindergarten should be devoted to number sense than to other topics, as students build fluency through concrete experiences, visual models, and verbal expressions.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In grades P-2, students ask questions to help them develop understanding of numbers, place value, the properties of addition and subtraction, and the properties of shapes. Students begin to ask questions about data related to the classroom and their day-to-day lives.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In grades P-2, students build an understanding of what the numbers, symbols, pictures, words, etc., in their work represent. Students develop flexibility in moving between concrete, pictorial, and abstract representations of mathematical ideas. They begin moving back and forth between a problem's context and its representation to use the form that best fits the situation.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

In grades K-2, students are learning to communicate their ideas and listen to the ideas of others. They develop strategies to agree and disagree respectfully. They begin to justify their arguments with evidence and draw connections between mathematical representations and procedures. Students also begin to compare and contrast their strategies and solutions.

Mathematical Practice 4: Build and use models

In grades P-2, students use a variety of models to build their understanding of numbers with increasing complexity, leading to an understanding of the base ten place value system. They model the actions and comparisons represented by the operations of addition and subtraction. Consistent exposure to these models supports fluency and helps students connect concrete experiences to foundational mathematical ideas.

Mathematical Practice 5: Select and use tools appropriately and strategically

In grades P-2, students use tools when they help them make sense of mathematics. Tools can include, but are not limited to, physical tools, visual tools, strategies, and algorithms. Consistent, hands-on practice with tools builds confidence and prepares students for flexible application.

Mathematical Practice 6: Attend to precision and reasonableness

In grades P-K, students use informal language as they develop and learn accurate mathematical vocabulary. They begin to learn strategies for assessing their accuracy when counting, naming numbers, and describing shapes.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In grades P-K, students explore patterns and structures in counting and with shapes. Students begin to develop understanding of the relationship between addition and subtraction using small numbers.

Mathematical Practice 8: Make conjectures and evaluate the results

In grades P-2, students make and test conjectures related to numbers, place value, the properties of addition and subtraction, and the attributes of shapes. During this process, students learn to evaluate the reasonableness of their solution path and adjust as needed. Providing students opportunities to revise their thinking helps students develop confidence in problem solving.

Standards: Kindergarten (K)

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Counting and Cardinality (CC)

Know number names and the counting sequence. Count to tell the number of objects and represent a given quantity in a set. Identify and compare quantities of objects and numerals. Identify an object's ordinal position. Subitize quantities.

K.CC.1

Accurately recite numbers in sequence from 1 to 100 by ones and tens. *Accurately* count backward from 10. Attend to the counting *structure*. (MP 6, 7)

K.CC.2

Accurately count forward from a given number between 1 and 100. Attend to the counting *structure*. (MP 6, 7)

K.CC.3

Use one-to-one correspondence to *accurately* identify the quantity of objects in a group of 0–20. Understand that the last number stated represents the number of objects counted. (MP 6)

K.CC.4

Given a number 1-20, count out that many objects. When counting objects, *build*

models to show that each successive number refers to a quantity that is one greater than the previous number. (MP 4)

K.CC.5

Read and write numbers 0 to 20 using base-ten numerals *with precision*. Represent a quantity of 0 to 20 objects with written numerals. (MP 6)

K.CC.6

Identify and compare quantities of objects and numerals up to 10 using the words “greater than,” “less than,” and “equal to.” Use matching or counting strategies and reasoning to *justify* comparisons. (MP 3)

K.CC.7

Identify and *justify* an object's ordinal position, *using precise mathematical language*. Order quantities or numerals using the ordinal words “first” through “tenth.” (MP 3, 6)

K.CC.8

Use patterns and structures to subitize quantities up to 10. (MP 7)

Operations and Algebraic Thinking (OA)

Understand addition as putting together and adding to, and subtraction as taking apart and taking from.

K.OA.1

Represent addition and subtraction with sums and minuends up to and including 10 *using a variety of tools and models*. *Attend to the precision and reasonableness* of results. (MP 4, 5, 6)

K.OA.2

Build and use models to solve addition and subtraction story problems with sums or minuends up to and including 10. *Add or remove story context* to solve problem type situations of adding to and taking from with result unknown, putting together with the total unknown, and putting together with both addends unknown. (MP 2, 4)

K.OA.3

Compose and decompose numbers less than or equal to 10 in multiple ways *using a variety of models*. Make sums to 10 using numbers 1-9. *Make conjectures* about why a number or set of objects can be broken apart in multiple ways. (MP 4, 8)

K.OA.4

Use strategies to add and subtract *flexibly, accurately, and efficiently* using numbers less than or equal to 5. (MP 6)

Number and Operations in Base Ten (NBT)

Build and use models to compose and decompose numbers from 11-19 into ten ones and some more ones to conceptually understand place value.

K.NBT.1

Build and use models to compose and decompose numbers from 11-19 into ten ones and some more ones. *Represent structure* from those models with math language and an equation (e.g., "Eighteen is the same as 10 and 8"; $18=10+8$). *Describe the pattern* that teen numbers are always composed of ten ones and some more ones. (MP 4, 7)

Measurement and Geometry (MG)

Identify, describe, and compare measurable attributes of objects. Analyze, compare, create, and compose shapes.

K.MG.1

Describe several measurable attributes of a single object (e.g., length and weight), *attending to precision and reasonableness*. Compare two objects with a common measurable attribute to see which object has "more of"/ "less of" the attribute, and *justify the results*. (MP 3, 6)

K.MG.2

Describe structures of two-dimensional and three-dimensional shapes, including names and attributes, regardless of size or orientation. *Describe* their relative positions in the environment. (MP 7)

K.MG.3

Analyze, compare, and sort two- and three-dimensional shapes and objects regardless of size or orientation. *Justify* the sort using informal language to describe similarities, differences, and other attributes (e.g., color, size, shape, number of sides). (MP 3)

K.MG.4

Build and use models to create two- and three-dimensional shapes and objects. Use simple shapes to form larger shapes. (MP 4)

K.MG.5

Recognize that clocks are tools used to measure and show time. Connect the use of clocks to daily routines and events. *Recognize structures* and features of clocks. (MP 7)

Data Science (D)

Ask questions that lead to collecting, analyzing, and interpreting data. Sort, count, and compare objects in a data set.

K.D.1

Ask questions as a class about a given topic that will lead to collecting, analyzing, and interpreting data gathered within the classroom. (MP 1)

K.D.2

Collect and organize data. *Build data models* with up to three categories. (MP 4)

K.D.3

Analyze data by observing *patterns and structures* in data models. *Accurately* count the number of objects or data points in each category. (MP 6, 7)

K.D.4

Interpret data to identify *and justify* which groups contain more, less, or the same amount by comparing the number in each category. (MP 3)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of kindergarten, children will be able to:

- Count up to 20 objects in a set to answer questions like "how many." (CC)
- Read and write numbers 0-20. (CC)
- Count to 100 by ones. (CC)
- Compare quantities of objects and numerals up to 10. (CC)
- Quickly recognize groups of up to 10 objects without counting. (CC)
- Fluently add and subtract when the largest number in the equation is no greater than 5. (Basic fact fluency) (OA)
- Draw pictures or use objects to solve addition and subtraction story problems where the largest number in the story is no greater than 10. (OA)
- Break apart numbers less than or equal to 10 in multiple ways. (OA)
- Break apart numbers 11-19 into ten ones and some more ones. (NBT)

Standards: Grade 1

Introduction

In kindergarten through second grade, the major work of each grade focuses on developing an understanding of addition and subtraction and building an understanding of the base-ten place value number system. Students develop an understanding of foundational concepts of linear measurement and explore the defining attributes of shapes.

In Grade 1, instructional time should focus on four major works: (1) developing understanding of addition, subtraction, and strategies for addition and subtraction; (2) developing understanding of whole number relationships and place value, including grouping in tens and ones; (3) developing understanding of linear measurement and measuring lengths as iterating length units; and (4) reasoning about attributes of, and composing and decomposing geometric shapes.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In grades P-2, students ask questions to help them develop understanding of numbers, place value, the properties of addition and subtraction, and the properties of shapes. Students begin to ask questions about data related to the classroom and their day-to-day lives.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In grades P-2, students build an understanding of what the numbers, symbols, pictures, words, etc., in their work represent. Students develop flexibility in moving between concrete, pictorial, and abstract representations of mathematical ideas. They begin moving back and forth between a problem's context and its representation to use the form that best fits the situation.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

In grades K-2, students are learning to communicate their ideas and listen to the ideas of others. They develop strategies to agree and disagree respectfully. They begin to justify their arguments with evidence and draw connections between mathematical representations and procedures. Students also begin to compare and contrast their strategies and solutions.

Mathematical Practice 4: Build and use models

In grades P-2, students use a variety of models to build their understanding of numbers with increasing complexity, leading to an understanding of the base ten place value system. They model the actions and comparisons represented by the operations of addition and subtraction. Consistent exposure to these models supports fluency and helps students connect concrete experiences to foundational mathematical ideas.

Mathematical Practice 5: Select and use tools appropriately and strategically

In grades P-2, students use tools when they help them make sense of mathematics. Tools can include, but are not limited to, physical tools, visual tools, strategies, and algorithms. Consistent, hands-on practice with tools builds confidence and prepares students for flexible application.

Mathematical Practice 6: Attend to precision and reasonableness

In grades 1-2, students refine informal language as they develop and learn precise mathematical vocabulary. Students use structure to accurately record, label, and share their thinking. They explore when a precise answer is necessary and when making an estimate, which can help them determine if a solution makes sense. Students use estimation strategies based on place value structure and the properties of operations to assess reasonableness throughout the problem-solving process.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In grades 1-2, students explore patterns and structures such as place value,

properties of operations, and composition of shapes. They use structures and patterns to develop a deep understanding of addition and subtraction. Students use structures and patterns to see complicated things as single objects or as composed of several objects.

Mathematical Practice 8: Make conjectures and evaluate the results

In grades P-2, students make and test conjectures related to numbers, place value, the properties of addition and subtraction, and the attributes of shapes. During this process, students learn to evaluate the reasonableness of their solution path and adjust as needed. Providing students opportunities to revise their thinking helps students develop confidence in problem solving.

Standards: Grade 1

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Operations and Algebraic Thinking (OA)

Represent and solve problems involving addition and subtraction with sums and minuends less than or equal to 20. Solve problem type situations with unknowns in all places. (Mastery of start-unknown problems is not expected until second grade.) Understand and apply properties of operations and the relationship between addition and subtraction. Understand the meaning of the equal sign.

1.OA.1

Build and use models to solve addition and subtraction story problems with sums and minuends less than or equal to 20. *Add or remove story context* to solve problem type situations of adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions. (MP 2, 4)

1.OA.2

Build and use models to solve story problems involving adding three whole numbers with sums less than or equal to 20. *Add or remove context to make sense* of problems and solutions. (MP 2, 4)

1.OA.3

Make and test conjectures about properties of addition. *Add context* to make sense of these properties as strategies to add and subtract. (MP 2, 8)

1.OA.4

Describe and represent subtraction as an unknown-addend problem. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers, and *justify the results*. (MP 3, 7)

1.OA.5

Describe structures and relationships to connect counting to addition and subtraction. (MP 7)

1.OA.6

Add and subtract with sums and minuends less than or equal to 20. *Connect and justify* different strategies for addition and subtraction. (MP 3)

1.OA.7

Use strategies to add and subtract *flexibly, accurately, and efficiently* with sums and minuends less than or equal to 10. (MP 6)

1.OA.8

Build and use models to make sense of the meaning of the equal sign. *Make and test conjectures* regarding whether addition and subtraction equations are true or false. (MP 4, 8)

Number and Operations in Base Ten (NBT)

Count and represent numbers up to and including 120. Build and use models to conceptually understand place value. Use place value understanding to add and subtract larger numbers.

1.NBT.1

Count to 120 *accurately*, starting at any number. Represent a number of objects up to and including 120 with a written numeral. (MP 6)

1.NBT.2

Build and use models to represent and identify the number of tens and ones in a two-digit number. Show place value understanding by bundling ten ones to make a “ten.” (MP 4)

1.NBT.3

Compare two two-digit numbers using *models* and/or place value understanding. *Represent the relationship* between the two numbers using comparison symbols $<$, $=$, and $>$. (MP 4, 7)

1.NBT.4

Build and use concrete and pictorial models to determine the sum of two two-digit numbers, a two-digit number and a one-digit number, and a two-digit number and a multiple of ten (less than or equal to 90). Use the models *to represent and describe the structure* of combining tens with tens, ones with ones, and composing ten ones to make a ten. *Ask questions to compare* concrete and pictorial models. (MP 4, 7, 8)

1.NBT.5

Build and use concrete and pictorial models to subtract a multiple of ten from a larger multiple of ten. *Ask questions to compare* concrete and pictorial models. (MP 1, 7)

1.NBT.6

Mentally find ten more or ten less than a given two-digit number and *justify the result* using place value language. (MP 3)

1. NBT.7

Use place value understanding to count forward or backward by tens from any number, and *describe the pattern* in the ones place and tens place when counting by ten. (MP 7)

Measurement and Geometry (MG)

Measure lengths. Tell and write time. Identify the value of U.S. coins. Reason with shapes and their attributes.

1.MG.1

Select a tool to use as a non-standard length unit. Measure by repeating the non-standard length unit. Express the length of the object as a whole number. (MP 5)

1.MG.2

Construct a reasonable argument about the order of three objects sorted by length. Compare the lengths of two objects indirectly using a third object and *justify the results*. (MP 3)

1.MG.3

Tell and write time in hours and half-hours using analog and digital clocks, *attending to precision and reasonableness*. (MP 63)

1.MG.4

Describe attributes of and identify common U.S. coins. *Attend to precision* when representing their comparative values and use appropriate notation (5¢). (MP 6)

1.MG.5

Ask questions to distinguish between defining and non-defining attributes of shapes. Given defining attribute(s), build and draw shapes that possess the defining attribute(s). (MP 1)

1.MG.6

Use structures, patterns, and relationships to create a composite shape formed by two- and three-dimensional shapes and compose new shapes from the composite shape. (MP 7)

1.MG.7

Build and use models to partition circles and rectangles into two or four equal

shares. *Justify, compare, and evaluate* how decomposing a shape into more equal shares creates smaller shares. (MP 3, 4)

Data Science (D)

Ask investigative questions that lead to collecting, analyzing, and interpreting data. Build models to organize data, and interpret data visualizations.

1.D.1

Determine a topic question and *ask investigative questions* that will lead to collecting, analyzing, and interpreting data within the context of the classroom. (MP 1)

1.D.2

Collect and organize data. *Build data visualizations* including bar graphs and picture graphs. When given a data set, *build data models and visualizations*. (MP 4)

1.D.3

Analyze data sets and data visualizations with up to three categories. *Ask questions* to make sense of the data representation. (MP 1)

1.D.4

Interpret data to answer investigative questions. *Construct and justify arguments* about the data. (MP 3)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of first grade, children will be able to:

- Fluently add and subtract when the largest number in the equation is no

greater than 10. (Basic fact fluency) (OA)

- Draw pictures, use objects or write equations to solve addition and subtraction story problems where the largest number in the story is no greater than 20. (OA)
- Use a variety of strategies to add and subtract. (OA)
- Count, write, and recognize numbers to 120 (NBT)
- Make sense of place value and the meaning of tens and ones in two-digit numbers. (NBT)
- Add two-digit numbers using objects and pictures. (NBT)
- Measure length using non-standard measurement units. (MG)

Standards: Grade 2

Introduction

In kindergarten through second grade, the major work of each grade focuses on developing an understanding of addition and subtraction and building an understanding of the base-ten place value number system. Students develop an understanding of foundational concepts of linear measurement and explore the defining attributes of shapes.

In Grade 2, instructional time should focus on four major works: (1) extending understanding of place value, including grouping in hundreds, tens and ones; (2) building fluency with addition and subtraction; (3) using standard units of measure; and (4) describing and analyzing shapes.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In grades P-2, students ask questions to help them develop understanding of numbers, place value, the properties of addition and subtraction, and the properties of shapes. Students begin to ask questions about data related to the classroom and their day-to-day lives.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In grades P-2, students build an understanding of what the numbers, symbols, pictures, words, etc., in their work represent. Students develop flexibility in moving between concrete, pictorial, and abstract representations of mathematical ideas. They begin moving back and forth between a problem's context and its representation to use the form that best fits the situation.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

In grades K-2, students are learning to communicate their ideas and listen to the

ideas of others. They develop strategies to agree and disagree respectfully. They begin to justify their arguments with evidence and draw connections between mathematical representations and procedures. Students also begin to compare and contrast their strategies and solutions.

Mathematical Practice 4: Build and use models

In grades P-2, students use a variety of models to build their understanding of numbers with increasing complexity, leading to an understanding of the base ten place value system. They model the actions and comparisons represented by the operations of addition and subtraction. Consistent exposure to these models supports fluency and helps students connect concrete experiences to foundational mathematical ideas.

Mathematical Practice 5: Select and use tools appropriately and strategically

In grades P-2, students use tools when they help them make sense of mathematics. Tools can include, but are not limited to, physical tools, visual tools, strategies, and algorithms. Consistent, hands-on practice with tools builds confidence and prepares students for flexible application.

Mathematical Practice 6: Attend to precision and reasonableness

In grades 1-2, students refine informal language as they develop and learn precise mathematical vocabulary. Students use structure to accurately record, label, and share their thinking. They explore when a precise answer is necessary and when making an estimate, which can help them determine if a solution makes sense. Students use estimation strategies based on place value structure and the properties of operations to assess reasonableness throughout the problem-solving process.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In grades 1-2, students explore patterns and structures such as place value, properties of operations, and composition of shapes. They use structures and

patterns to develop a deep understanding of addition and subtraction. Students use structures and patterns to see complicated things as single objects or as composed of several objects.

Mathematical Practice 8: Make conjectures and evaluate the results

In grades P-2, students make and test conjectures related to numbers, place value, the properties of addition and subtraction, and the attributes of shapes. During this process, students learn to evaluate the reasonableness of their solution path and adjust as needed. Providing students opportunities to revise their thinking helps students develop confidence in problem solving.

Standards: Grade 2

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Operations and Algebraic Thinking (OA)

Represent and solve problems involving addition and subtraction with unknowns in all locations. Add and subtract fluently with sums and minuends less than or equal to 20. Work with equal groups of objects to gain foundations for multiplication.

2.OA.1

Build and use models to solve one-step addition and subtraction story problems with sums and minuends less than or equal to 100, and two-step addition and subtraction story problems with sums and minuends less than or equal to 20. *Add or remove story context* to solve problem type situations with unknowns in all positions while attending to the meaning of the equal sign. (MP 2, 4)

2.OA.2

Use strategies and properties to add and subtract *flexibly, accurately, and efficiently* with sums and minuends less than or equal to 20. Know from memory all sums of

two one-digit numbers. (MP 6)

2.OA.3

Describe and represent structures and patterns to determine if a group of up to 20 objects has an odd or even number of items by pairing them or counting by twos. (MP 7)

2.OA.4

Build and use models involving repeated addition to determine the total number of objects in rectangular arrays with up to 5 rows and up to 5 columns. *Describe and represent the structures and patterns* of the arrays. *Make and evaluate conjectures* about whether the sums are the same when adding by row or column. (MP 4, 7, 8)

Number and Operations in Base Ten (NBT)

Build and use models to conceptually understand place value. Use place value understanding to add and subtract.

2.NBT.1

Show place value understanding by bundling ten 10s to make a “hundred.” Use a variety of *models to represent* the amount of hundreds, tens, and ones in a three-digit number. Identify the number of hundreds, tens, and ones in a three-digit number and describe the value of each digit. (MP 4)

2.NBT.2

Count within 1,000, *making conjectures* about counting patterns; Skip-count by twos, fives, tens, and hundreds. (MP 8)

2.NBT.3

Read three-digit whole numbers and *represent the place value structure* in those numbers using numerals, base 10 word form, and expanded form. (MP 7)

2.NBT.4

Compare two three-digit numbers *using models* and/or place value understanding. *Represent the relationship* between the two numbers using comparison symbols $<$, $=$,

and $>$. (MP 4, 7)

2.NBT.5

Use numerical strategies to determine the sum of up to four two-digit numbers, and the difference of two two-digit numbers *flexibly, accurately, and efficiently. Justify* a chosen strategy using the relationship between addition and subtraction, properties of addition, and/or place value language. (MP 3, 6)

2.NBT.6

Build and use concrete and pictorial models to determine the sums and differences of three-digit numbers with sums and minuends up to and including 999. Use the models to *represent and describe the structure of* combining hundreds with hundreds, tens with tens, ones with ones, and composing and decomposing tens and hundreds. *Ask questions to compare* concrete and pictorial models with efficient numerical strategies. (MP 1, 4, 7)

2.NBT.7

Mentally add and subtract multiples of 10 or 100 from a three-digit number and *justify the result* using place value language. (MP 3)

Measurement and Geometry (MG)

Measure and estimate lengths in standard units and relate addition and subtraction to length. Work with time and money. Analyze and partition shapes to build a foundation for multiplication, area, and fractions.

2.MG.1

Select and use appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes to measure the length of objects to the nearest whole unit. (MP 5)

2.MG.2

Describe and represent the length of an object using two different units of measure. *Describe the relationship* of the two measurements and relate them to the units chosen. (MP 7)

2.MG.3

Construct, justify, and communicate clear and reasonable arguments when estimating lengths using inches, feet, centimeters, and meters. (MP 3)

2.MG.4

Measure with *precision* to determine how much longer one object is than another. Express the difference in length using a standard unit. (MP 6)

2.MG.5

Build and use a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2,... as a *model* to represent whole numbers as lengths from zero. *Strategically use an open number line as a tool* to model and solve whole-number addition and subtraction equations and word problems within 100. (MP 4, 5)

2.MG.6

Attend to precision when telling and writing time to the nearest five minutes. *Add context* to determine when to use a.m. and p.m., *attending to reasonableness*. (MP 2, 6)

2.MG.7

Add or remove context when solving problems involving dollar bills, quarters, dimes, nickels, and pennies. (MP 2)

2.MG.8

Ask questions to identify and describe shapes having specific attributes. Build and draw shapes that possess specified attributes. (MP 1)

2.MG.9

Build and use models to partition a rectangle into rows and columns of same-size squares and count to find the total number of squares. (MP 4)

2.MG.10

Describe and represent structures, patterns and relationships when partitioning two-dimensional shapes into two, three, or four equal shares; describe the shares using the words halves, thirds, a fourth of, quarters, etc. Recognize that equal parts of

identical wholes need not have the same shape. (MP 7)

Data Science (D)

Ask investigative questions that lead to collecting, analyzing, and interpreting data. Organize and build data visualizations using features such as titles, labels, and legends. Consider the impact missing data may have on a data set.

2.D.1

Determine a topic question and *ask investigative questions* that will lead to collecting, analyzing, and interpreting data within the context of classroom and grade. (MP 1)

2.D.2

Collect and organize data. *Build data visualizations* including bar graphs and pictographs with single-unit scales. *Ask questions* to consider a given data set about a classroom or grade level context, and organize that data using different variables. (MP 1, 4)

2.D.3

Analyze data sets and single-unit scale data visualizations using features such as titles, labels, and legends. *Ask questions* to make sense of the data. (MP 1)

2.D.4

Interpret data to answer investigative questions. *Construct and justify arguments* about the data. Make conjectures about the impact missing data may have on interpretation of the data. (MP 3, 8)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of second grade,

children will be able to:

- Fluently add and subtract when the largest number in the equation is no greater than 20. (Basic fact fluency) (OA)
- Connect numerical strategies to concrete and pictorial models to solve one- and two-step addition and subtraction story problems. (OA)
- Fluently add and subtract when the largest number in the equation is no greater than 100. (Computational fluency) (NBT)
- Make sense of place value and the meaning of hundreds, tens, and ones in three-digit numbers using visual and numerical models. (NBT)
- Add and subtract three-digit numbers using objects, pictures, and numerical strategies. (NBT)
- Relate addition and subtraction to length. (MG)
- Analyze and partition shapes and begin using fractional language (e.g., halves, thirds and fourths). (MG)

Standards: Grade 3

Introduction

In third through fifth grade, the major work of each grade focuses on representing and understanding multiplication and division and developing an understanding of fractions. Students generalize and expand their place value understanding. Measurement concepts are expanded to include two- and three-dimensional measurements.

In Grade 3, instructional time should focus on four major works: (1) developing understanding of multiplication and division and strategies for multiplication and division within 100; (2) developing understanding of fractions, especially unit fractions (fractions with numerator 1); (3) developing understanding of the structure of rectangular arrays and of area; and (4) describing and analyzing two-dimensional shapes.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In grades 3-5, students ask questions to help them understand multi digit numbers, fractions, decimals, the properties of all four operations, and the classification of shapes. Students ask questions to help them make sense of data and different data representations.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In grades 3-5, students understand what the numbers, symbols, pictures, words, etc. in their work represent when using the four operations. Students flexibly move between concrete, pictorial, and abstract representations of mathematical ideas. They move back and forth between a problem's context and its representation to use the form that best fits the situation.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

In grades 3-5, students use mathematical vocabulary to communicate their ideas and listen to others' ideas. They utilize strategies to agree and disagree respectfully. They back their argument up with evidence and draw connections between mathematical representations, comparing and contrasting their strategy and solution to others.

Mathematical Practice 4: Build and use models

In grades 3-5, students use a variety of models to extend their understanding of the base ten place value system, including decimals. They use models to build their understanding of fractions. They model the actions and comparisons represented by all four operations. In the upper grades, students focus on models that represent multiplication and division, including area models, number lines, and other multiplicative comparisons.

Mathematical Practice 5: Select and use tools appropriately and strategically

In grades 3-5, students use tools when they help them understand mathematics. Tools can include, but are not limited to, physical tools, visual tools, strategies, and algorithms.

Mathematical Practice 6: Attend to precision and reasonableness

In grades 3-5, students refine informal language as they develop and learn precise mathematical vocabulary. Students use structure to accurately record, label, and share their thinking. They determine when a precise answer is necessary and when making an estimate can help them determine if a solution makes sense. Students use estimation strategies such as rounding, utilizing benchmark fractions, and properties of operations to assess reasonableness through the problem solving process.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In grades 3-5, students use structures and patterns to develop a deep understanding of the operations of multiplication and division. They extend their

understanding of patterns, structures, and relationships through work with fractions, decimals, and larger whole numbers. Students use structures and patterns to see complicated things as single objects or composed of several objects.

Mathematical Practice 8: Make conjectures and evaluate the results

In grades 3-5, students make and test conjectures related to multi digit numbers, fractions, decimals, the properties of all four operations, and the properties of shapes. As students test their conjectures, they evaluate the reasonableness of their solution path and adjust as needed.

Standards: Grade 3

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Operations and Algebraic Thinking (OA)

Represent and solve problems involving multiplication and division with whole number products and quotients. Demonstrate understanding of the properties of multiplication and the relationship between multiplication and division. Utilize the associative, commutative, distributive, identity, and zero properties. Use the four operations to solve multistep problems and to explain patterns in arithmetic.

3.OA.1

Build and use models to find and interpret the products of whole numbers. (MP 4)

3.OA.2

Build and use models to find and interpret whole-number quotients. (MP 4)

3.OA.3

Solve multiplication and division story problems with products or dividends less than or equal to 100 and whole number quotients, *using a variety of models. Add or*

remove context to solve situations involving equal groups, arrays, and measurement quantities. (MP 2, 4)

3.OA.4

Evaluate the unknown whole number in a multiplication or division equation. *Represent* division as an unknown-factor problem, and *describe the relationship* between multiplication and division. (MP 7)

3.OA.5

Make and assess conjectures about the properties of multiplication. *Add context* to make sense of these properties as strategies to multiply and divide with products and dividends less than or equal to 100. (MP 2, 8)

3.OA.6

Multiply and divide *flexibly, accurately, and efficiently*, with products, dividends, and divisors up to and including 100, and quotients up to and including 10. Know from memory all products of two one-digit numbers. (MP 6)

3.OA.7

Build and use models to solve two-step story problems involving whole numbers and having whole-number answers using the four operations, and attend to *the reasonableness* of answers. *Remove context* to represent situations as equations with a variable standing in for the unknown quantity. (MP 2, 4, 6)

Number and Operations in Base Ten (NBT)

Use efficient numerical strategies (founded in place value thinking and properties of operations) to perform multi-digit addition, subtraction, and multiplication.

3.NBT.1

Describe and represent place value structure by bundling ten 100s to make a thousand. *Represent* the amount of thousands, hundreds, tens, and ones in a 4-digit number, and *describe* the value of each. (MP 7)

3.NBT.2

Use *models* to round 2- or 3-digit whole numbers to the nearest 10 or 100 *in and out of context*. Determine if rounding is appropriate for a given situation and *justify* the reasoning. (MP 2, 3, 4)

3.NBT.3

Determine sums and differences of three-digit whole numbers using numerical strategies *flexibly, accurately, and efficiently*. *Justify* a chosen strategy with place value language. (MP 3, 6)

3.NBT.4

Find the product of a one-digit whole number and a multiple of 10 (10-90). *Make and test conjectures* to generalize patterns that occur when multiplying by a multiple of ten. (MP 8)

Number and Operations – Fractions (NF)

Develop an understanding of fractions including whole numbers. Represent fractions, find equivalent fractions, and make sense of fractions in context. Denominators are limited to 2, 3, 4, 6, and 8 in third grade.

3.NF.1

Describe and represent a fraction, a/b , as a numerator and a non-zero denominator, including unit fractions and fractions equal to whole numbers. Compose and decompose a fraction using unit fractions. Identify the meaning of the whole for a given context. (MP 7)

3.NF.2

Build and use number line models to represent fractions, using unit fractions as intervals. Connect number line models with area models to make sense of fractions. (MP 4)

3.NF.3

Build and use models to make sense of and generate equivalent fractions including whole numbers. *Justify* why equivalent fractions must reference the same whole to be equivalent. (MP 3, 4)

3.NF.4

Compare fractions with like numerators or like denominators, and *justify* the comparisons *using models* and/or by reasoning about their size. (MP 3, 4)

Measurement and Geometry (MG)

Solve problems involving estimated and precise measurements. Develop an understanding of area and perimeter. Relate area to multiplication and division. Reason with shapes and their attributes.

3.MG.1

Make reasonable estimates about length, weight, and liquid volume. *Select and use tools appropriately and strategically* to find *precise* measurements. (MP 5, 6)

3.MG.2

Attend to precision when telling and writing time to the nearest minute. (MP 6)

3.MG.3

Add or remove context to solve one-step story problems involving length, liquid volume, mass, and time. (MP 6)

3.MG.4

Recognize area and perimeter as attributes of plane figures. *Build and use models* to understand the concept of unit squares and area. *Select and use tools strategically and appropriately* to distinguish between linear (perimeter) and area measures. Use tiling to show that the area of a rectangle is the same as would be found by multiplying side lengths. (MP 4, 5)

3.MG.5

Build and use area models to represent the distributive property and relate the representations to the operations of addition and multiplication. (MP 4)

3.MG.6

Add and remove context to solve real-world and mathematical problems involving

perimeters of simple polygons and rectangular areas. *Make and evaluate conjectures* about rectangles with the same perimeter and different areas or with the same area and different perimeters. Describe how area and perimeter are related. (MP 4, 8)

3.MG.7

Describe and represent shared attributes of shapes in a category, and recognize that the shared attributes define the larger category. *Build models* of quadrilaterals that do not belong to a given subcategory. (MP 4, 7)

3.MG.8

Attend to precision when partitioning shapes into parts with equal areas and expressing the area of each part as a unit fraction of the whole. (MP 6)

Data Science (D)

Identify whether investigative questions will result in quantitative or categorical data collection. Represent data sets with three or more categories using visualizations with scales of 2, 5, and 10. Determine the benefits and drawbacks of different data visualizations and scales. Identify patterns, trends, and outliers in a data set.

3.D.1

Determine a topic question and *ask investigative questions* that will lead to collecting, analyzing, and interpreting data. Identify whether the question asked will result in quantitative or categorical data. (MP 1)

3.D.2

Select and use tools strategically to collect and organize data. Build data visualizations using scales of 2s, 5s, and 10s. Represent a data set with three or more categories. *Ask questions* to consider a given data set. Identify data as quantitative or categorical. (MP 1, 5)

3.D.3

Analyze data sets and *bar graphs and pictographs* with scales of 2s, 5s, and 10s.

Make and evaluate conjectures about benefits and drawbacks of different visualizations and scales used to analyze a set of data. (MP 6, 8)

3.D.4

Interpret data, including scaled visualizations, to answer investigative questions. *Construct and justify arguments* about the data. Identify patterns, trends, and outliers in the data. Identify ways to refine investigative questions, data collection, visualization, or analysis. (MP 3)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of third grade, children will be able to:

- Use pictures, objects, and equations to solve multiplication and division story problems when the largest number in the story is no greater than 100. (OA)
- Fluently multiply two one-digit numbers. (Basic fact fluency) (OA)
- Fluently divide numbers when the dividend is no greater than 100 and the quotient is no greater than 10. (Basic fact fluency) (OA)
- Fluently add and subtract when the largest number in the equation is no greater than 999. (Computational fluency) (NBT)
- Describe and represent a fraction as a numerator and denominator, a fraction as a part of a whole, and as a location on a number line. (NF)
- Build models and use reasoning strategies to compare fractions. (NF)
- Build models to generate equivalent fractions. (NF)
- Use models to determine the area of rectangles. (MG)

Standards: Grade 4

Introduction

In third through fifth grade, the major work of each grade focuses on representing and understanding multiplication and division and developing an understanding of fractions. Students generalize and expand their place value understanding. Measurement concepts are expanded to include two- and three-dimensional measurements.

In Grade 4, instructional time should focus on four major works: (1) generalizing understanding of place value to 1,000,000, understanding the multiplicative relationship between the value of each place; (2) developing understanding and fluency with multi-digit multiplication, and developing understanding of dividing to find quotients involving multi-digit dividends; (3) developing an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers; and (4) understanding that geometric figures can be analyzed and classified based on their properties, such as having parallel sides, perpendicular sides, particular angle measures, and symmetry.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In grades 3-5, students ask questions to help them understand multi digit numbers, fractions, decimals, the properties of all four operations, and the classification of shapes. Students ask questions to help them make sense of data and different data representations.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In grades 3-5, students understand what the numbers, symbols, pictures, words, etc. in their work represent when using the four operations. Students flexibly move between concrete, pictorial, and abstract representations of mathematical ideas.

They move back and forth between a problem's context and its representation to use the form that best fits the situation.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

In grades 3-5, students use mathematical vocabulary to communicate their ideas and listen to others' ideas. They utilize strategies to agree and disagree respectfully. They back their argument up with evidence and draw connections between mathematical representations, comparing and contrasting their strategy and solution to others.

Mathematical Practice 4: Build and use models

In grades 3-5, students use a variety of models to extend their understanding of the base ten place value system, including decimals. They use models to build their understanding of fractions. They model the actions and comparisons represented by all four operations. In the upper grades, students focus on models that represent multiplication and division, including area models, number lines, and other multiplicative comparisons.

Mathematical Practice 5: Select and use tools appropriately and strategically

In grades 3-5, students use tools when they help them understand mathematics. Tools can include, but are not limited to, physical tools, visual tools, strategies, and algorithms.

Mathematical Practice 6: Attend to precision and reasonableness

In grades 3-5, students refine informal language as they develop and learn precise mathematical vocabulary. Students use structure to accurately record, label, and share their thinking. They determine when a precise answer is necessary and when making an estimate can help them determine if a solution makes sense. Students use estimation strategies such as rounding, utilizing benchmark fractions, and properties of operations to assess reasonableness through the problem solving process.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In grades 3-5, students use structures and patterns to develop a deep understanding of the operations of multiplication and division. They extend their understanding of patterns, structures, and relationships through work with fractions, decimals, and larger whole numbers. Students use structures and patterns to see complicated things as single objects or composed of several objects.

Mathematical Practice 8: Make conjectures and evaluate the results

In grades 3-5, students make and test conjectures related to multi digit numbers, fractions, decimals, the properties of all four operations, and the properties of shapes. As students test their conjectures, they evaluate the reasonableness of their solution path and adjust as needed.

Standards: Grade 4

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Operation and Algebraic Thinking (OA)

Understand multiplication as a comparison. Use the four operations to solve multistep problems in which remainders must be interpreted. Demonstrate understanding of the properties of operations. Explore the relationship between factors and multiples. Generate and interpret multiplicative patterns.

4.OA.1

Build and use models to visualize a multiplication equation as a comparison. *Represent* verbal statements of multiplicative comparisons as multiplication equations. (MP 4, 7)

4.OA.2

Solve story problems involving multiplicative comparison by *building and using models*, including drawings and equations with a symbol for the unknown number. *Make and evaluate conjectures* about the difference between multiplicative and additive comparison. (MP 4, 8)

4.OA.3

Use and name properties of operations to *justify* strategies used to solve problems involving the four operations. (MP 3)

4.OA.4

Build and use models to solve multi-step story problems involving whole numbers using the four operations, including problems in which remainders must be interpreted. *Attend to the reasonableness* of answers. *Remove context* to represent situations as equations with a variable standing in for the unknown quantity. (MP 2, 4, 6)

4.OA.5

Find factors and multiples of whole numbers. *Make and test conjectures* about the relationship between any whole number and its factors. (MP 8)

4.OA.6

Generate a number or shape pattern based on a given rule. *Describe and represent* the features of the pattern that are not explicitly stated in the rule itself. *Make and test conjectures* about how the pattern will continue. (MP 7, 8)

Number and Operations in Base Ten (NBT)

Use place value understanding to make multiplicative comparisons. Write, compare, and round whole numbers less than or equal to 1,000,000. Use efficient algorithms for multi-digit addition and subtraction. Use efficient numerical strategies, place value understanding, and properties of operations to perform multi-digit multiplication and division.

4.NBT.1

Describe the structure of place value by explaining how the value of one place

represents ten times more than the place to its right. *Represent those patterns* with a statement of multiplicative comparison. (MP 7)

4.NBT.2

Read multi-digit whole numbers up to and including 1,000,000. *Represent* multi-digit whole numbers using numerals and expanded form. (MP 7)

4.NBT.3

Compare two whole numbers with up to 6 digits and *represent the relationship* between two numbers using comparison symbols $<$, $=$, and $>$. (MP 7)

4.NBT.4

Apply knowledge of place value structure to round whole numbers up to and including six digits *in and out of context*. *Justify* whether rounding is appropriate in a given situation. (MP 2, 3)

4.NBT.5

Use efficient algorithms to determine sums and differences of multi-digit whole numbers *in real-world contexts and equations flexibly, accurately, and efficiently*. Determine if sums and differences are *reasonable*. (MP 2, 6)

4.NBT.6

Develop visual and numerical models based on place value and/or the properties of multiplication to multiply a whole number of up to four digits by a one-digit whole number, and to multiply two two-digit numbers. (MP 4)

4.NBT.7

Develop visual and numerical models based on place value and/or the relationship between multiplication and division to divide up to a three-digit number by a one-digit number. (MP 4)

Number and Operations–Fractions (NF)

Extend understanding of equivalence and ordering fractions. Build on previous understanding of fractions to begin operating with fractions and explore the

relationship between fractions and decimals. Understand decimal notation to the hundredths. Denominators are limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100 in fourth grade.

4.NF.1

Compose and decompose fractions, mixed numbers and fractions greater than one *by building and using models*. Represent fractions as the sum of fractions with the same denominator in more than one way. *Justify* the equivalence with equations. Recognize that a value can be expressed as a fraction greater than one and an equivalent mixed number. (MP 3, 4)

4.NF.2

Recognize and generate equivalent fractions, connecting numerical strategies to visual fraction models. Make and test conjectures about what happens to a fraction when the numerator and the denominator are multiplied by the same number. (MP 8)

4.NF.3

Compare and order fractions with different numerators and denominators. *Construct and communicate arguments that justify* the order of the fractions. (MP 3)

4.NF.4

Build and use models to add and subtract fractions with like denominators, including mixed numbers. Solve problems involving addition and subtraction of fractions *in real world contexts and equations*. (MP 2, 4)

4.NF.5

Build and use models to extend understanding of multiplication to fractions. Connect repeated addition to multiplication when multiplying a fraction by a whole number. Multiply a fraction by a whole number using numerical strategies. Solve problems involving multiplying a fraction by a whole number *in real world contexts*. (MP 2, 4)

4.NF.6

Build and use models to express a fraction with denominator of 10 as an equivalent

fraction with denominator of 100, and use this technique to add two fractions with respective denominators of 10 and 100. (MP 4)

4.NF.7

Connect decimal notation to fractions with denominators of 10 or 100. *Construct clear and reasonable arguments to justify* how the decimal notation and fraction are equivalent. (MP 3)

4.NF.8

Compare two decimal numbers to the hundredths place by reasoning about their size. *Justify* the comparison. *Represent the relationship* between two numbers using comparison symbols $<$, $=$, and $>$. (MP 3, 7)

Measurement and Geometry (MG)

Solve problems involving measurement and conversion of measurements. Solve real-world area and perimeter problems. Understand concepts of angles and angle measurement. Draw and identify lines and angles, and classify shapes by the properties of their lines and angles.

4.MG.1

Add and remove context to solve real-world and mathematical problems involving the area and perimeter of rectangles and rectilinear shapes. *Build and use models* to make sense of the area and perimeter formulas for rectangles. (MP 2, 4)

4.MG.2

Draw points, lines, line segments, rays, angles (right, acute, and obtuse), and perpendicular and parallel lines. *Describe these structures and their relationships* within two-dimensional figures. (MP 7)

4.MG.3

Describe angles as geometric figures formed by two rays with a common endpoint. Understand that an angle is measured with reference to a circle. *Describe the relationship* between an angle's measure and the fraction of the circular arc that it represents. (MP 7)

4.MG.4

Attend to precision and reasonableness when measuring or sketching angles in whole-number degrees using a protractor. (MP 6)

4.MG.5

Understand and demonstrate the additive nature of angle measures. Find and *justify* unknown angles on a diagram using addition and subtraction. (MP 3)

4.MG.6

Compare and classify two-dimensional figures including quadrilaterals and triangles based on the presence or absence of parallel lines, perpendicular lines, and angles of specified sizes. *Justify and evaluate* the classification. (MP 3)

Data Science (D)

Investigate and analyze situations with up to two variables. Identify the impact of the sampling process and sample size on the collection, visualization, and interpretation of data.

4.D.1

Determine a topic question and *ask investigative questions* that will lead to collecting, analyzing, and interpreting data with up to two variables. *Make conjectures* about the impact of the sampling process and sample size on results. (MP 1, 8)

4.D.2

Select and use tools strategically to collect and organize data. Build data visualizations. *Ask questions* to consider a given data set with up to two variables. (MP 1, 5)

4.D.3

Analyze data and data visualizations. *Evaluate conjectures* about how different sampling processes or data visualizations might influence interpretation of data. (MP 6, 8)

4.D.4

Interpret data and data visualizations to answer investigative questions. *Construct and justify arguments* about the data. Discuss ways that the sampling process and sample size may affect how people draw conclusions from data. Identify ways to refine investigative questions, data collection, visualization, or analysis. (MP 3)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of fourth grade, children will be able to:

- Understand multiplication as a comparison. (OA)
- Solve whole number, multi-step word problems involving addition, subtraction, multiplication, and division. (OA)
- Generalize place value understanding for multi-digit whole numbers (less than 1,000,000) by analyzing patterns, representing whole numbers in a variety of ways, and making multiplicative comparisons. (NBT)
- Use efficient algorithms to fluently add and subtract. (Computational and procedural fluency) (NBT)
- Use models to represent and make sense of two-digit by two-digit multiplication and division with one-digit divisors (ex, $125 \div 5 = 25$ where 5 is the divisor). (NBT)
- Make connections between numerical representations and visual models to compare, order, and determine if fractions have equal values. (NF)
- Build and use models to add and subtract fractions with like denominators and to multiply fractions by a whole number. (NF)
- Build and use models to connect decimal values to fractions with

denominators of tenths and hundredths. (NF)

- Apply knowledge of area to solve real-world and mathematical problems.
(MG)

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Standards: Grade 5

Introduction

In third through fifth grade, the major work of each grade focuses on representing and understanding multiplication and division and developing an understanding of fractions. Students generalize and expand their place value understanding. Measurement concepts are expanded to include two- and three-dimensional measurements.

In Grade 5, instructional time should focus on three major works: (1) extending understanding of addition and subtraction of fractions, and developing understanding of the multiplication of fractions and of division of fractions in limited cases (unit fractions divided by whole numbers and whole numbers divided by unit fractions); (2) master place value understanding to develop understanding of operations with decimals to hundredths and with whole number and decimal operations; and (3) developing an understanding of volume.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In grades 3-5, students ask questions to help them understand multi digit numbers, fractions, decimals, the properties of all four operations, and the classification of shapes. Students ask questions to help them make sense of data and different data representations.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In grades 3-5, students understand what the numbers, symbols, pictures, words, etc. in their work represent when using the four operations. Students flexibly move between concrete, pictorial, and abstract representations of mathematical ideas. They move back and forth between a problem's context and its representation to use the form that best fits the situation.

Mathematical Practice 3: Construct, justify, and communicate clear and

reasonable arguments

In grades 3-5, students use mathematical vocabulary to communicate their ideas and listen to others' ideas. They utilize strategies to agree and disagree respectfully. They back their argument up with evidence and draw connections between mathematical representations, comparing and contrasting their strategy and solution to others.

Mathematical Practice 4: Build and use models

In grades 3-5, students use a variety of models to extend their understanding of the base ten place value system, including decimals. They use models to build their understanding of fractions. They model the actions and comparisons represented by all four operations. In the upper grades, students focus on models that represent multiplication and division, including area models, number lines, and other multiplicative comparisons.

Mathematical Practice 5: Select and use tools appropriately and strategically

In grades 3-5, students use tools when they help them understand mathematics. Tools can include, but are not limited to, physical tools, visual tools, strategies, and algorithms.

Mathematical Practice 6: Attend to precision and reasonableness

In grades 3-5, students refine informal language as they develop and learn precise mathematical vocabulary. Students use structure to accurately record, label, and share their thinking. They determine when a precise answer is necessary and when making an estimate can help them determine if a solution makes sense. Students use estimation strategies such as rounding, utilizing benchmark fractions, and properties of operations to assess reasonableness through the problem solving process.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In grades 3-5, students use structures and patterns to develop a deep

understanding of the operations of multiplication and division. They extend their understanding of patterns, structures, and relationships through work with fractions, decimals, and larger whole numbers. Students use structures and patterns to see complicated things as single objects or composed of several objects.

Mathematical Practice 8: Make conjectures and evaluate the results

In grades 3-5, students make and test conjectures related to multi digit numbers, fractions, decimals, the properties of all four operations, and the properties of shapes. As students test their conjectures, they evaluate the reasonableness of their solution path and adjust as needed.

Standards: Grade 5

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Operations and Algebraic Thinking (OA)

Explore prime and composite numbers. Write and interpret numerical expressions. Justify and generalize understanding of properties of operations. Analyze patterns and relationships.

5.OA.1

Use structures, patterns, and relationships to determine whether a given whole number between 1 and 100 is prime or composite. (MP 7)

5.OA.2

Add context to make sense of numerical expressions involving multiple operations with parentheses, brackets, or braces. Write and/or evaluate numerical expressions. (SMP 2)

5.OA.3

Generate two numerical patterns using two given rules. *Describe and represent relationships* between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns and graph the ordered pairs on a coordinate plane. (MP 7)

Number and Operations in Base Ten (NBT)

Understand structures and patterns in the place value system including decimals to thousandths and powers of ten. Perform operations with multi-digit whole numbers and with decimals to hundredths.

5.NBT.1

Describe the structure of place value by explaining that the value of one place represents ten times as much as the place to its right and $\frac{1}{10}$ of the place to its left. *Represent those patterns* with a statement of multiplicative comparison. (MP 7)

5.NBT.2

Represent powers of 10 with whole-number exponents. *Make and test conjectures about* a decimal's placement when multiplying by powers of 10. (MP 7, 8)

5.NBT.3

Describe and represent decimals to the thousandths place using models, base-ten numerals, number names, and expanded forms. (MP 7)

5.NBT.4

Compare two decimal numbers and *represent the relationship* between the two numbers using comparison symbols $<$, $=$, and $>$. (MP 7)

5.NBT.5

Apply knowledge of place value structure to round decimal numbers to the nearest whole, tenth, or hundredth *in and out of context*. Determine and *justify* situations where rounding is appropriate. (MP 2, 3)

5.NBT.6

Use efficient numerical strategies based on properties of multiplication and/or place value to multiply a whole number of up to four digits by a one digit whole number and to multiply two two-digit numbers *flexibly, accurately, and efficiently in real-world contexts and equations*. Determine if products are *reasonable*. (MP 2, 6)

5.NBT.7

Use efficient numerical strategies based on properties of multiplication and/or place value to divide up to a four digit number by a one digit number. *Communicate* the meaning of the remainder *in real world contexts*. (MP 2, 3)

5.NBT.8

Build and use models to find sums and differences of decimals to hundredths *in real-world contexts and equations*. Use the models to *represent and describe the structure* of adding tenths with tenths and hundredths with hundredths. (MP 2, 4, 7)

5.NBT.9

Build and use models to find products of decimals to hundredths *in real-world contexts and equations*. (MP 2, 4)

5.NBT.10

Build and use models to find quotients of decimals limited to a whole number dividend with a decimal divisor of tenths between 0 and 1, or a decimal dividend with a single-digit whole number divisor *in real-world contexts and equations*. (MP 2, 4)

Number and Operations–Fractions (NF)

Use equivalent fractions as a strategy to add and subtract fractions. Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

5.NF.1

Add and subtract fractions with unlike denominators *with precision*. Solve problems involving addition and subtraction with unlike denominators in *real world contexts and equations*. Determine if the solution is *reasonable*. (MP 2, 6)

5.NF.2

Interpret a fraction as division (a/b is the same as $a \div b$). Solve problems involving division *in real world contexts* using *visual models and/or equations*. (MP 2, 4)

5.NF.3

Build and use models, including area models, to multiply fractions, whole numbers, and mixed numbers. Connect the properties of multiplication to multiplying fractions. Solve problems involving multiplication of fractions and mixed numbers *using real world contexts and equations* (fraction by a fraction, fraction by a mixed number, mixed number by mixed number). (MP 2, 4)

5.NF.4

Interpret multiplication as scaling. *Construct, justify, and communicate clear and reasonable arguments* about the size of the resulting product when multiplying a given number by a fraction greater than one, a fraction less than one, a fraction equal to one. *Make and test conjectures* about the size of the product based on the size of the factors without computing. (MP 3, 8)

5.NF.5

Build and use models that extend understanding of division to divide unit fractions by whole numbers and whole numbers by unit fractions. Solve problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions *using real world contexts and equations*. *Make conjectures* about the relationship between multiplication and division when operating with fractions *and evaluate the results*. (MP 2, 4, 8)

Measurement and Geometry (MG)

Convert like measurement units. Develop an understanding of volume. Understand and use quadrant one in the coordinate plane. Classify two-dimensional figures based on their attributes.

5.MG.1

Recognize volume as an attribute of solid figures. *Build and use models* to understand the concept of volume. Demonstrate that unit cubes can be packed into rectangular prisms. Determine volume by counting unit cubes and expressing the volume in cubic units. (MP 4)

5.MG.2

Build and use models to make sense of and apply the formulas for finding the volume of right rectangular prisms. *Add or remove context to solve real-world problems* involving the volume of a right rectangular prisms with whole-number side lengths. (MP 2, 4)

5.MG.3

Build and use a model of the coordinate plane to represent real-world problems. Understand the numbers in the coordinate pair indicate distance from the origin in the direction of the horizontal and vertical axes. Graph points in the first quadrant of the coordinate plane Interpret coordinate values based on a given context. (MP 2, 4)

5.MG.4

Describe and represent structure, patterns, and relationships when classifying quadrilaterals in a hierarchy based on attributes. (MP 7)

Data Science (D)

Investigate and analyze situations with up to four variables. Interpret data to answer investigative questions. Consider the impact of data visualizations, bias, and sampling approaches. Explore features of visible distribution.

5.D.1

Determine a topic question and *ask investigative questions* that will lead to collecting, analyzing, and interpreting data with up to four variables. *Ask questions* to identify potential sources of bias in data collection, representation, and interpretation. (MP 1)

5.D.2

Select and use tools strategically, to collect and organize data. Build data visualizations. *Ask questions* to consider a given data set with up to four variables. *Make conjectures about* potential sampling approaches and how those approaches impact results. (MP 1, 5, 8)

5.D.3

Analyze data sets with up to four variables and multiple data visualizations *Evaluate* sampling approaches and data visualizations to identify potential data bias. (MP 6, 8)

5.D.4

Interpret data and data visualizations to answer investigative questions while considering the impact of data bias, choice of data visualizations, and sample size. *Construct and justify arguments* about the data based on visible features of distribution such as center and range. Identify ways to refine investigative questions, data collection, visualization, or analysis. (MP 3)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of fifth grade, children will be able to:

- Generalize place value understanding for decimals to the thousandths place by analyzing patterns, representing numbers in a variety of ways, and making multiplicative comparisons. (NBT)
- Fluently multiply multi-digit whole numbers by a one-digit whole number and two two-digit whole numbers. (Computational and procedural fluency) (NBT)

- Use efficient numerical strategies to solve division problems. (NBT)
- Build and use models to solve addition, subtraction, multiplication and division problems involving decimals. (NBT)
- Add and subtract fractions with unlike denominators. (NF)
- Build and use models to multiply fractions, whole numbers, and mixed numbers. (NF)
- Recognize volume as an attribute of a solid shape and explain how multiplication and addition relate to volume. (MG)

Standards: Grade 6

Introduction

In sixth through eighth grade, the major work of each grade focuses on applying and using operations with rational numbers, understanding ratio concepts and applying proportional reasoning, and simplifying expressions and solving equations.

In sixth grade, instructional time should focus on four major works: (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; and (4) interpreting data to answer investigative questions.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In grades 6-8, students formulate questions to explore mathematical ideas involving real-world problems that use rate, ratio, and percents; in the context of data analysis, students interpret quantitative bivariate data to answer investigative questions, asking questions about patterns, associations, and potential outliers within the data.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In grades 6-8, students understand what the numbers, symbols, pictures, words, etc. in their work represent when working with algebraic equations and expressions. Students flexibly move between concrete, pictorial, and abstract representations of mathematical ideas like linear functions. They move back and forth between a problem's context and its representation to use the form that best fits the situation.

Mathematical Practice 3: Construct, justify, and communicate clear and

reasonable arguments

In grades 6-8, students construct, justify, and communicate arguments in various mathematical contexts such as: solving problems involving ratios and rates and explaining their thinking about proportional relationships, to justify and explain the logical steps needed to solve multi-step equations and inequalities, and to communicate informal arguments to establish angle relationships for parallel lines cut by a transversal and angle relationships for triangles.

Mathematical Practice 4: Build and use models

In grades 6-8, students build visual models of fractions to extend their understanding of multiplication and division. They build a variety of models to extend their understanding of proportional relationships and linear functions.

Mathematical Practice 5: Select and use tools appropriately and strategically

In grades 6-8, students focus on building foundational skills through the diverse use of mathematical tools. Students use algebraic tools to generate equivalent expressions and solve multi-step equations involving positive and negative numbers. For geometry, students engage with geometric concepts by using both classical tools like a straight edge and compass and dynamic geometry software to explore, construct, and analyze shapes. Students use computer based tools to explore data, utilizing graphical displays and numerical summaries as statistical tools to analyze and interpret data.

Mathematical Practice 6: Attend to precision and reasonableness

In grades 6-8, students attend to mathematical precision and reasonableness in their communication, calculations and processes. They calculate flexibly, accurately, and efficiently, using clear and concise notation to record their work. Students apply this skill when adding, subtracting, multiplying and dividing multi-digit whole numbers and decimals. Students attend to the reasonableness of solutions when solving multi-step, real world problems using positive and negative rational numbers, and when finding rational approximations of irrational numbers.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In grades 6-8, students describe and represent their mathematical understanding of structures, pattern and relationships to extend their understanding of multiplication and division in order to divide fractions by fractions; to develop and apply properties of integer exponents to generate equivalent numerical expressions and to use the structure of similar triangles to explain why the slope of a non-vertical line is constant between any two points on the coordinate plane.

Mathematical Practice 8: Make conjectures and evaluate the results

In grades 6-8, students develop and assess conjectures related to proportional relationships and apply the concepts of unit rate and percent. They also develop and assess conjectures about the properties of irrational numbers by comparing them to the set of rational numbers, and make conjectures about dilations and congruency of geometric figures.

Standards: Grade 6

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Algebra (A)

Build on previous learning in Operations and Algebraic Thinking to reason with and solve one-variable equations and inequalities.

6.A.1

Use structure to write and evaluate numerical expressions involving whole numbers exponents. (MP 7)

6.A.2

Describe and represent patterns and structures of expressions to write, read, and evaluate algebraic expressions. (MP 7)

6.A.3

Use properties of operations *as tools to* generate equivalent expressions. Use properties of operations and understanding of arithmetic *to justify* why two expressions are equivalent. (MP 3, 5)

6.A.4

Use substitution to reason about whether a given number in a specified set makes an equation or inequality true. Provide *justification* to support that reasoning. (MP 3)

6.A.5

Describe, represent and solve real-world and mathematical problems using variables within the *structure* of one-step equations and inequalities. (MP 7)

6.A.6

Create equations to *model* relationships between two quantities using variables, both *in and out of context*. (MP 2, 4)

Number Systems (NS)

Build on previous work involving operations to compute fluently with multi-digit numbers, decimal and fractions. Understand that there is a set of numbers called integers and create models to show and describe integers and their relationships.

6.NS.1

Extend prior understanding of multiplication and division to divide fractions by fractions. *Build and use visual fraction models* to make sense of and solve problems dividing fractions by fractions. *Add and remove context with* problems involving division of fractions by fractions and interpret the quotients. (MP 2, 4)

6.NS.2

Describe and represent structures and patterns to apply an algorithm to divide multi-digit decimals *flexibly, accurately, and efficiently*. Limit division to a whole number

dividend with a decimal divisor or a decimal dividend with a whole number divisor. Determine and *justify* situations where estimation is appropriate. (MP 3, 6, 7)

6.NS.3

Attend to precision and reasonableness when adding, subtracting, multiplying, and dividing multi-digit whole numbers and decimals *flexibly, accurately, and efficiently*. (MP 6)

6.NS.4

Find the greatest common factor between two whole numbers 1 to 100 and the least common multiples of two whole numbers 1 to 12 by making use of *structures and patterns*. Relate greatest common factors to the distributive property. (e.g., re-express $36 + 8$ as $4(9 + 2)$). (MP 7)

6.NS.5

Use positive and negative numbers together to represent quantities in *real world contexts*, explain the meaning of zero in *context*. *Communicate* understanding that positive and negative numbers are used together to describe quantities having opposite directions or values. (MP 2, 3)

6.NS.6

Build and use models to show positive and negative numbers on a number line and coordinate plane. Use models to order positive and negative numbers. (MP 4)

6.NS.7

Build and use models to develop the definition of absolute value. Work with absolute value *in and out of context*. (MP 2, 4)

Ratio and Proportional Relationships (RP)

Understand ratio concepts and use ratio reasoning to solve problems.

6.RP.1

Clearly communicate understanding of ratio relationships by using ratio language. (MP 3)

6.RP.2

Clearly communicate understanding of the concept of a unit rate associated with a ratio and use rate language to *represent* a unit rate associated with a ratio relationship. (MP 7)

6.RP.3

Build and use models including tables, double number lines, and/or tape diagrams to represent and reason *about* real-world ratio relationships with whole number quantities. (MP 4)

6.RP.4

Use ratio and rate reasoning *as a tool* to make sense of and solve problems in context. (MP 5)

6.RP.5

Use ratio reasoning *as a tool* to convert measurement units when given a unit conversion chart. (MP 5)

Geometry (G)

Solve real-world and mathematical problems involving area, surface area, and volume. Draw polygons on the coordinate plane.

6.G.1

Find the area of right triangles, other triangles, special quadrilaterals, and polygons by *composing and decomposing into rectangles, triangles and/or other shapes*. (MP 7)

6.G.2

Build and use nets to represent 3-dimensional figures composed of rectangles and triangles. *Use nets as tools* to find the surface area of the figure. (MP 4, 5)

6.G.3

Select and use tools appropriately to solve *real-world and decontextualized mathematical problems* involving surface area and volume of right rectangular

prisms with fractional edge lengths. (MP 2, 5)

6.G.4

Construct polygons on the coordinate plane given coordinates for the vertices. Use coordinates to find the length of a side joining points with the same x coordinate or the same y coordinate. Apply these techniques to *solve problems with and without real-world context*. (MP 2)

Data Science (D)

Investigate and analyze situations with large data sets. Describe and represent structures and patterns of statistical variability of data. Interpret data to answer investigative questions about distributions, considering the interpretation of the following features of distributions: center, variability, overall shape, and deviations. Identify ways to refine investigative questions, data collection, visualization, or analysis.

6.D.1

Formulate statistical investigative questions that anticipate variability in data and how the data may impact the investigation question. (MP 1)

6.D.2

Select and use tools appropriately and strategically to generate, collect, and organize data. *Ask questions* about how the data were collected and whether the data are useful to answer the statistical question of interest. (MP 1, 5)

6.D.3

Create *precise and reasonable* visual representations, including histograms (with or without technology), dot plots, and box plots. *Justify* which graph or plot best represents the data. Analyze and interpret visual representations and numerical summaries for measures of center (mean and/or median) and measures of variability (mean absolute deviation and/or interquartile range). (MP 3, 6)

6.D.4

Construct, justify, and communicate answers to investigative questions about

distributions. Consider the interpretation of the following features of distributions: center (mean and/or median), variability (mean absolute deviation and/or inter quartile range), and overall shape (symmetric or non-symmetric). Describe any striking deviations (outliers). Identify ways to refine investigative questions, data collection, visualization, or analysis. (MP 3)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of sixth grade, students will be able to:

- Apply previous understanding of arithmetic to generate equivalent algebraic expressions. (A)
- Reason with and solve one-variable equations and inequalities and analyze the relationship between two quantities in a real-world context. (A)
- Fluently add, subtract, multiply, and divide with rational numbers. (Computational and procedural fluency) (NS)
- Define, identify, and explain the meaning of integers on number lines, coordinate grids, and in real-world context. (NS)
- Understand rate and ratio relationships. (RP)
- Build and use models to represent real-world ratio relationships and solve ratio/rate problems. (RP)
- Solve real-world and mathematical problems involving area, surface area, and volume. (G)
- Answer investigative questions about distributions, considering the interpretation of the following features: center, variability, overall shape, and

deviations. (D)

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Standards: Grade 7

Introduction

In sixth through eighth grade, the major work of each grade focuses on applying and using operations with rational numbers, understanding ratio concepts and applying proportional reasoning, and simplifying expressions and solving equations.

In seventh grade, instructional time should focus on four major works: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In grades 6-8, students formulate questions to explore mathematical ideas involving real-world problems that use rate, ratio, and percents; in the context of data analysis, students interpret quantitative bivariate data to answer investigative questions, asking questions about patterns, associations, and potential outliers within the data.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In grades 6-8, students understand what the numbers, symbols, pictures, words, etc. in their work represent when working with algebraic equations and expressions. Students flexibly move between concrete, pictorial, and abstract representations of mathematical ideas like linear functions. They move back and forth between a problem's context and its representation to use the form that best fits the situation.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

In grades 6-8, students construct, justify, and communicate arguments in various mathematical contexts such as: solving problems involving ratios and rates and explaining their thinking about proportional relationships, to justify and explain the logical steps needed to solve multi-step equations and inequalities, and to communicate informal arguments to establish angle relationships for parallel lines cut by a transversal and angle relationships for triangles.

Mathematical Practice 4: Build and use models

In grades 6-8, students build visual models of fractions to extend their understanding of multiplication and division. They build a variety of models to extend their understanding of proportional relationships and linear functions.

Mathematical Practice 5: Select and use tools appropriately and strategically

In grades 6-8, students focus on building foundational skills through the diverse use of mathematical tools. Students use algebraic tools to generate equivalent expressions and solve multi-step equations involving positive and negative numbers. For geometry, students engage with geometric concepts by using both classical tools like a straight edge and compass and dynamic geometry software to explore, construct, and analyze shapes. Students use computer based tools to explore data, utilizing graphical displays and numerical summaries as statistical tools to analyze and interpret data.

Mathematical Practice 6: Attend to precision and reasonableness

In grades 6-8, students attend to mathematical precision and reasonableness in their communication, calculations and processes. They calculate flexibly, accurately, and efficiently, using clear and concise notation to record their work. Students apply this skill when adding, subtracting, multiplying and dividing multi-digit whole numbers and decimals. Students attend to the reasonableness of solutions when solving multi-step, real world problems using positive and negative rational numbers, and when finding rational approximations of irrational numbers.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In grades 6-8, students describe and represent their mathematical understanding of structures, pattern and relationships to extend their understanding of multiplication and division in order to divide fractions by fractions; to develop and apply properties of integer exponents to generate equivalent numerical expressions and to use the structure of similar triangles to explain why the slope of a non-vertical line is constant between any two points on the coordinate plane.

Mathematical Practice 8: Make conjectures and evaluate the results

In grades 6-8, students develop and assess conjectures related to proportional relationships and apply the concepts of unit rate and percent. They also develop and assess conjectures about the properties of irrational numbers by comparing them to the set of rational numbers, and make conjectures about dilations and congruency of geometric figures.

Standards: Grade 7

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Algebra (A)

Use properties of operations to generate equivalent expressions. Represent and solve mathematical problems using algebraic expressions and equations.

7.A.1

Apply properties of operations as *tools* to add, subtract, factor and expand linear expressions with rational coefficients in different forms. (MP 5)

7.A.2

Use algebraic tools to solve equations and inequalities representing real-world problems of the form $px+q=r$ and $p(x+q)=r$ using positive and negative rational numbers. *Attend to the reasonableness* of the solutions. (MP 5, 6)

7.A.3

Given a context, construct equations and inequalities to *model* real-world problems of the form $px+q=r$ and $p(x+q)=r$ using positive and negative rational numbers. (MP 4)

7.A.4

Build and use models including tables, graphs, and equations to represent and understand the relationship between independent and dependent variables. (MP 4)

The Number System (NS)

Build upon understanding of fractions and decimals to define the set of rational numbers. Apply understanding of rational numbers and operations to solve problems.

7.NS.1

Describe and represent structures, patterns and relationships to define rational numbers and make connections between fraction, decimal and percent representations. of a rational number. Flexibly use the various representations of rational numbers *while attending to precision*. (MP 6, 7)

7.NS.2

Build and use models including a horizontal or vertical number line diagram to extend previous understanding of addition and subtraction to add and subtract rational numbers *in and out of context* including signed decimals and fractions. (MP 2, 4)

7.NS.3

Extend previous understanding of multiplication and division to multiply and divide rational numbers *in and out of context*. (MP 2)

7.NS.4

Flexibly, accurately, and efficiently add, subtract, multiply and divide rational numbers including signed decimals and fractions *in and out of context*. Attend to *precision and reasonableness* of solutions. (MP 5, 6)

Ratio and Proportional Relationships (RP)

Use ratio and rate understanding to develop, recognize, and model proportional relationships. Use patterns in these relationships to reason about and solve real-world problems. Apply proportional reasoning to understand and solve percent problems.

7.RP.1

Calculate unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities. Apply unit rate as a tool to *make and evaluate conjectures* about proportional relationships (MP 8)

7.RP.2

Understand percent of a quantity as a rate per 100. Describe and *represent structures and patterns* that connect percent to ratio. (MP 7)

7.RP.3

Build and use models including tables, graphs, double number lines, or tape diagrams to find a percent of a quantity as a rate per 100. Solve problems involving finding the whole, the part, or the percent. (MP 4)

7.RP.4

Recognize *structures and patterns* when analyzing real world contexts to determine whether two quantities have a proportional relationship. Use tables, graphs, equations, diagrams and verbal descriptions to justify whether a relationship is proportional. (MP 3, 7)

7.RP.5

Build and use models (tables, graphs, equations, diagrams and verbal descriptions) to represent proportional relationships and identify and interpret the constant of proportionality. (MP 4)

7.RP.6

Use proportional relationships *as a tool* to solve multi-step and percent problems such as simple interest, tax, markups and markdowns, gratuities and commissions, fees, and percent increase and decrease. (MP 5)

7.RP.7

Interpret the meaning of a point (x,y) on the graph of a proportional relationship in a given context. Connect and *interpret the relationship* between the points $(0, 0)$ and $(1, r)$ where r is the unit rate. (MP 4, 7)

Geometry (G)

Draw, construct, and describe geometrical figures from given criteria. Use and connect 2D and 3D geometrical figures to real-life situations and use them to solve real-world and mathematical problems.

7.G.1

Select and use tools appropriately and strategically (e.g., a compass, straightedge, dynamic geometry software) to draw and accurately describe scaled geometrical figures. *Utilize the underlying structure* of scale drawings to understand scale factor and solve real world and mathematical problems. (MP 5, 7)

7.G.2

Select and use tools appropriately and strategically to create triangles from given conditions to determine whether a unique triangle, more than one triangle, or no triangle can be formed. (MP 5)

7.G.3

Flexibly, accurately and efficiently solve real-world and mathematical problems involving perimeter and area of circles, triangles, quadrilaterals and polygons as well as surface area of right prisms. (MP 2, 6)

7.G.4

Describe and use the relationship between the area of a base of a right-prism and its

volume to solve real world and mathematical problems. (MP 7)

7.G.5

Describe and represent structures, patterns, and relationships related to supplementary, complementary, vertical, and adjacent angles to solve for unknown angle measures in a figure. (MP 7)

Data Science (D)

Investigate and analyze situations with large data sets. Make inferences about populations based on samples. Draw informal comparative inferences about two populations. Investigate chance processes and develop, use, and evaluate probability models. Identify ways to refine investigative questions, data collection, visualization, or analysis.

7.D.1

Formulate statistical investigative questions that anticipate variability in data collected from a random sample of a population. (MP 1)

7.D.2

Generate, collect, and organize randomly sampled data that is representative of the population *using tools appropriately*. Explain why random sampling is more likely to produce representative samples and support valid inferences *using clear and reasonable arguments*. (MP 3, 5)

7.D.3

Create *precise and reasonable* visual representations, including histograms (with technology), dot plots, and box plots. Analyze and interpret visual representations and numerical summaries for measures of center (mean and/or median) and measures of variability (mean absolute deviation and/or inter-quartile range). (MP 6)

7.D.4

Construct, justify, and communicate answers to investigative questions about a population and comparisons about two different populations. Compare features

such as center (mean and median), variability (mean absolute deviation and inter-quartile range) and overall shape (symmetric or nonsymmetric). (MP 3)

7.D.5

Communicate clear understanding that the probability of a chance event is the likelihood of an event occurring and is expressed as a number between 0 and 1. (MP 3)

7.D.6

Estimate the probability of a chance event by observing its long-run relative frequency. Given the probability, predict and *evaluate the reasonableness* of approximate relative frequencies. (MP 8)

7.D.7

Build and use probability models such as organized lists, tables, tree diagrams, and simulations to find or estimate probabilities of simple and compound events. (MP 4)

7.D.8

Build a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies. If the agreement is not good, explain possible sources for discrepancy. (e.g., find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the simulation appear to be equally likely based on the observed frequencies?) (MP 4)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of seventh grade, students will be able to:

- Use properties of operations to generate equivalent expressions and solve real-world problems using algebraic equations and inequalities. (A)
- Add, subtract, multiply, and divide rational numbers including negative and positive numbers to solve problems with and without context. (NS)
- Flexibly use various representations of fractions, percents, and decimals. (NS)
- Recognize proportional relationships with and without context. Use patterns in proportional relationships to reason about and solve problems. (RP)
- Understand the meaning of percent connected to ratios, and solve percent problems. (RP)
- Find the perimeter and area of triangles, quadrilaterals, and polygons. Find the surface area and volume of right rectangular prisms. Find the area and circumference of a circle. (G)
- Solve for unknown angles measures using angle relationships (G)
- Make inferences about populations based on samples, supported by measures of center and measures of variability. (D)
- Investigate chance processes and develop, use, and evaluate probability models. (D)

Standards: Grade 8

Introduction

In sixth through eighth grade, the major work of each grade focuses on applying and using operations with rational numbers, understanding ratio concepts and applying proportional reasoning, and simplifying expressions and solving equations.

In eighth grade, instructional time should focus on three major works: (1) formulating and reasoning about expressions and equations, including modeling an association in bivariate data with a linear equation, and solving linear equations and systems of linear equations; (2) grasping the concept of a function and using functions to describe quantitative relationships; (3) analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In grades 6-8, students formulate questions to explore mathematical ideas involving real-world problems that use rate, ratio, and percents; in the context of data analysis, students interpret quantitative bivariate data to answer investigative questions, asking questions about patterns, associations, and potential outliers within the data.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In grades 6-8, students understand what the numbers, symbols, pictures, words, etc. in their work represent when working with algebraic equations and expressions. Students flexibly move between concrete, pictorial, and abstract representations of mathematical ideas like linear functions. They move back and forth between a problem's context and its representation to use the form that best fits the situation.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

In grades 6-8, students construct, justify, and communicate arguments in various mathematical contexts such as: solving problems involving ratios and rates and explaining their thinking about proportional relationships, to justify and explain the logical steps needed to solve multi-step equations and inequalities, and to communicate informal arguments to establish angle relationships for parallel lines cut by a transversal and angle relationships for triangles.

Mathematical Practice 4: Build and use models

In grades 6-8, students build visual models of fractions to extend their understanding of multiplication and division. They build a variety of models to extend their understanding of proportional relationships and linear functions.

Mathematical Practice 5: Select and use tools appropriately and strategically

In grades 6-8, students focus on building foundational skills through the diverse use of mathematical tools. Students use algebraic tools to generate equivalent expressions and solve multi-step equations involving positive and negative numbers. For geometry, students engage with geometric concepts by using both classical tools like a straight edge and compass and dynamic geometry software to explore, construct, and analyze shapes. Students use computer based tools to explore data, utilizing graphical displays and numerical summaries as statistical tools to analyze and interpret data.

Mathematical Practice 6: Attend to precision and reasonableness

In grades 6-8, students attend to mathematical precision and reasonableness in their communication, calculations and processes. They calculate flexibly, accurately, and efficiently, using clear and concise notation to record their work. Students apply this skill when adding, subtracting, multiplying and dividing multidigit whole numbers and decimals. Students attend to the reasonableness of solutions when solving equations, real world problems using positive and negative rational numbers, and when finding rational approximations of irrational numbers.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In grades 6-8, students describe and represent their mathematical understanding of structures, pattern and relationships to extend their understanding of multiplication and division in order to divide fractions by fractions; to develop and apply properties of integers of exponents to generate equivalent numerical expressions and to use the structure of similar triangles to explain why the slope of a non-vertical line is constant between any two points on the coordinate plane.

Mathematical Practice 8: Make conjectures and evaluate the results

In grades 6-8, students develop and assess conjectures related to proportional relationships and apply the concepts of unit rate and percent. They also develop and assess conjecture about the properties of irrational numbers by comparing them to the set of rational numbers, and make conjectures about dilations and congruency of geometric figures.

Standards: Grade 8

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Algebra (A)

Build on prior understanding of expressions and equations to include work with integer exponents and radicals. Through the use of multiple representations, make connections between linear relationships and solve single-variable equations and inequalities.

8.A.1

Use structure and patterns to develop and apply the properties of integer exponents to generate equivalent expressions. (MP 7)

8.A.2

Use structure and patterns of operations to simplify and evaluate algebraic expressions, including those involving rational coefficients, exponents, and polynomial terms. (MP 7)

8.A.3

Use algebraic tools strategically to represent solutions to equations in the form $x^2 = p$ and $x^3 = p$. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. (MP 5)

8.A.4

Represent the structure and patterns of numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and express how many times as much one is than the other. (MP 7)

8.A.5

Apply structures, properties and patterns of exponents to perform all four operations with scientific notation. Interpret scientific notation in terms of a context. (MP 2, 7)

8.A.6

Represent patterns by graphing proportional relationships and interpret the unit rate as the slope of the graph. *Use the structure* of similar triangles to explain why the slope is the same between any two distinct points on a non-vertical line in the coordinate plane. (MP 7)

8.A.7

Represent and compare linear relationships using graphs, tables, and equations *with or without context*. Interpret slope and intercepts in *context*. (MP 2)

8.A.8

Use structures, patterns and properties of equivalence to solve symbolic and real-world single-variable equations and inequalities with rational number coefficients and justify algebraically. Solve absolute value equations in the form $|px| + q = c$ or $|px + q| = c$. (MP 7)

8.A.9

Build and use graphic models to analyze and solve systems of two linear equations in two variables and interpret their solutions. Identify systems that have zero, one, and infinite solutions *with or without context*. (MP 2, 4)

The Number System (NS)

Understand that there is a set of numbers which are not rational, called irrational numbers. Create models to show and describe irrational numbers and their relationships to rational numbers.

8.NS.1

Describe and represent structures and patterns comparing the set of irrational numbers to the set of rational numbers, in order to determine properties of irrational numbers. (MP 7)

8.NS.2

Find rational approximations of irrational numbers, *attending to precision and reasonableness*. Use a number line diagram as a *model* to compare values of irrational numbers. (MP 4, 6)

8.NS.3

Estimate the value of expressions containing irrational numbers, *with and without a context*. (MP 2)

8.NS.4

Justify why sums and products of rational numbers are rational, that the sum of a rational number and an irrational number is irrational, and that the product of a nonzero rational number and an irrational number is irrational. *Build and use models* to connect to physical situations. (MP 3, 4)

Functions (F)

Describe functions and their features. Use functions to model relationships between two variables.

8.F.1

Construct and communicate clear arguments as to whether a relation is a function. (MP 3)

8.F.2

Given a *representation* (verbal description, table, two coordinate pairs, or an equation of $y=mx+b$), determine and interpret the rate of change and the initial value *in and out of context*. (MP 2, 4)

8.F.3

Construct a function *to model* a linear relationship between two quantities when given a verbal description, a table, and a graph. (MP 4)

8.F.4

Given a graph of two quantities (linear and non-linear), *describe and represent* features of the relationship, including intervals where the function is increasing or decreasing, the location of its maximum and minimum values. *Build graphic models* that satisfy given qualitative features. (MP 4, 7)

8.F.5

Use multiple representations (tables, graphs, equations, diagrams and verbal descriptions) to compare the properties of linear and nonlinear functions with and without a context. *Justify* whether a function is linear or non-linear. (MP 3)

Geometry (G)

Understand and describe both congruence and similarity in terms of transformations. Explore and verify angle relationships connected to parallel lines cut by a transversal. Understand and use the Pythagorean Theorem.

8.G.1

Use rigid transformations to establish a definition of congruent figures. *Justify* that two shapes are congruent through the use of rigid transformations. *Make and evaluate conjectures* about attributes of, rotations, reflections, and translations with

and without coordinates. (MP 3, 8)

8.G.2

Use transformations (dilation, translation, reflection and rotation) to establish a definition of similar figures. *Justify* that two shapes are similar through the use of transformations. *Make and examine conjectures* about attributes of dilations, with and without coordinates. (MP 3, 8)

8.G.3

Ask questions to determine the difference between congruence and similarity in terms of transformations. *Clearly communicate* the distinction between congruent and similar figures. (MP 1, 3)

8.G.4

Create and communicate informal arguments that establish angle relationships for parallel lines cut by a transversal and angle relationships for triangles, including the angle sum and exterior angle. (MP 3)

8.G.5

Use the Pythagorean theorem when solving problems with right triangles and finding distance between two coordinate points. *Use geometric structures and numerical patterns* to understand and explain proofs of the Pythagorean Theorem. (MP 7)

8.G.6

Solve real-world and mathematical problems *with or without a context* involving right triangles, distance, and volume of cones, cylinders, and spheres. (MP 2)

Data Science (D)

Investigate and analyze situations with large data sets. Investigate patterns of association in bivariate data. Identify ways to refine investigative questions, data collection, visualization, or analysis.

8.D.1

Ask questions about bivariate data sets (quantitative and categorical) to investigate patterns of associations between two quantities. (MP 1)

8.D.2

Select and use tools appropriately and strategically to identify existing data sets or generate, collect, and organize data to investigate associations between two quantities. (MP 5)

8.D.3

Explore, describe and compare variability in bivariate data for quantitative variables by creating scatter plots. For scatter plots that suggest a linear association, *represent the relationship* with a linear equation, and informally assess the line of fit by judging the closeness of the data points to the line. (MP 7)

8.D.4

Describe, represent and explain patterns of association such as clustering, positive or negative association, linear or nonlinear association and effects of outliers. (MP 7)

8.D.5

Answer investigative questions by interpreting quantitative bivariate data. *Construct, justify, and communicate clear and reasonable arguments regarding the data. Use the equation of a linear model* to solve problems in the context of bivariate measurement data, including interpreting the slope and intercept. Identify ways to refine the question, data collection, visualization, or analysis. (MP 3, 4)

8.D.6

Explore, describe and compare variability in bivariate data for categorical variables by constructing two-way tables. Calculate and interpret relative frequencies for rows or columns in a two-way table. *Attend to precision and reasonableness.* (MP 6)

8.D.7

Construct, analyze, and communicate clear and reasonable arguments to answer investigative questions about the association between categorical bivariate data. Use the relative frequencies calculated for rows or columns as evidence to justify

and describe possible associations between the two variables. (MP 3)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of eighth grade, students will be able to:

- Work with integer exponents and radicals. (A)
- Analyze and solve linear equations and inequalities. (A)
- Analyze graphs to solve systems of two linear equations in two variables and interpret their solutions. (A)
- Extend understanding of the number line to include rational and an approximation of irrational numbers. (NS)
- Use linear functions to model relationships between two variables. (F)
- Describe key features of linear relationships and compare the properties of linear and nonlinear functions. (F)
- Understand and describe both congruence and similarity in terms of transformations. (G)
- Explore and verify angle relationships connected to parallel lines cut by a transversal. (G)
- Understand and use the Pythagorean Theorem. (G)
- Interpret data to answer investigative questions about quantitative bivariate data. (D)

Standards: Secondary Math I

Introduction

In Secondary Math I through Secondary Math III the major works of each grade focus on learning to create, interpret, manipulate, and solve algebraic equations. Students develop an understanding of functions and learn how to compare and represent functions as defined by rates of change, multiple representations and building functions. Students learn to define functions, describe their features and transformations. Students understand, apply and prove congruence of similarity as defined in terms of geometric transformations. Students also investigate statistical questions by creating a plan to collect data for a non-biased sample from a population for primary data or ask questions about how secondary data was collected and whether it is useful. They will analyze data using graphical displays and numerical summaries of the sample data and use the evidence from that analysis to answer the statistical question of interest.

In Secondary Math I instructional time should focus on five major works: (1) solving algebraic equations (linear and exponential); (2) understanding, comparing and representing linear and exponential functions; (3) describing characteristics of linear and exponential functions; (4) understanding and applying congruence as defined in terms of geometric transformations; and (5) analyzing and interpreting data that can be used to answer statistical questions of interest related to comparing multiple distributions or exploring associations between two quantitative variables.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In high school, students formulate and ask questions to highlight the difference between various function types. Students ask targeted questions about univariate data displays to explore mathematical ideas. Students ask questions about the underlying structure of geometric objects revealed by geometric constructions.

Mathematical Practice 2: Add or remove context to make sense of

mathematics

In high school, students contextualize and decontextualize functions to interpret their properties, connecting symbolic representations to meaningful situations. Students interpret the features of a function represented graphically, numerically and symbolically by applying and removing a context. Students interpret the parts of an expression in context to make sense of the underlying structure of polynomial and rational expressions.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

In high school, students construct, justify, and communicate clear and reasonable arguments about reflection and rotational symmetries of parallelograms and regular polygons. Students construct, justify and communicate proof of the Pythagorean Theorem using triangle similarity. Students construct arguments to distinguish between situations that can be modeled by various function types. They will construct arguments to justify claims such as why exponential growth eventually surpasses linear, quadratic or the growth in any other polynomial function.

Mathematical Practice 4: Build and use models

In high school, students build and use models in two primary ways. One of these is to use models to connect mathematical concepts to one another. Another way that students use models in high school is to model real-world phenomena.

Students create and use verbal, contextual, visual, symbolic, and physical models to connect mathematical ideas and enhance their understanding. In high school students use these models to describe and represent patterns and relationships to compare function types and connect mathematical ideas between them.

To model real-world phenomena, students engage in mathematical and statistical modeling to represent, analyze, and predict real-world situations. In high school students use geometric shapes, their measures, and their properties to model real world objects and apply geometric methods to solve design problems.

Mathematical Practice 5: Select and use tools appropriately and strategically

In high school, students learn to select and leverage multiple types of tools while engaging in and applying mathematics. Opportunities to leverage tools include, but are not limited to, selecting appropriate algebraic tools to solve linear, exponential, or quadratic equations for a variable. Students select and use appropriate tools to build representations for various function types with and without technology. Students use mathematical ideas as a tool to validate the appropriateness and usefulness of a model.

Mathematical Practice 6: Attend to precision and reasonableness

In high school, students attend to precision and reasonableness when analyzing data to compare two or more distributions, which includes selecting appropriate graphical displays and analyzing measures of center and variability. Students attend to precision and reasonableness when exploring associations between two quantitative variables, using tools like scatter plots and correlation to evaluate the reasonableness and strength of models. Students attend to precision of language and notation while constructing arguments and carefully evaluating the reasonableness of observed ideas and processes when exploring transformations of functions.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In high school, students describe the structures of linear and exponential expressions by identifying whole expressions being made up of parts, like terms and factors. Students describe and represent underlying structures to help define dilations and similar shapes, and then use these structures to solve problems. Students use models to explore and describe attributes of the structure, patterns and relationships of inverses for various function types.

Mathematical Practice 8: Make conjectures and evaluate the results

In high school, students develop and assess conjectures as they form hypotheses and assess their validity when evaluating results derived from statistical analyses to

answer investigative questions. Students make conjectures about the reasonableness and strength of the model they choose to describe the association between two quantitative variables. Students develop, assess, and evaluate conjectures about properties of exponents for rational exponents.

Standards: Secondary Math I

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Algebra (A)

Interpret the structure and patterns of linear and exponential expressions. Create inequalities to describe linear and exponential relationships. Understand solving equations/inequalities or systems of equations as a process of reasoning and having a knowledge of the tools that can be used to create arguments or justifications for solutions.

S1.A.1

Use the structure of linear expressions and exponential expressions with integer exponents to identify parts of the expression and interpret their meaning in context. *Interpret* complicated expressions (such as $P(1+r)^n$) by viewing one or more of their parts as a single entity. (MP 7)

S1.A.2

Build symbolic models of linear equations and inequalities, and use them to solve problems *in and out of context*. (MP 3, 4)

S1.A.3

Use algebraic properties of equality *as tools* to rearrange formulas to isolate a quantity of interest. (MP 5)

S1.A.4

Solve linear equations and inequalities *using algebraic tools*, starting from the assumption that a solution exists. Communicate clear arguments for equations that do not have one unique solution and justify the results. Interpret solutions and use both inequality and interval notation. (MP 3, 5)

S1.A.5

Solve systems of linear equations *using algebraic tools*. Understand and *justify* how equations are manipulated while maintaining the consistency of the system. (MP 3, 5)

S1.A.6

Interpret whether a solution of a system of linear equations and inequalities is viable or non-viable *using graphic and analytic models*. Use *models* of systems of linear equations and inequalities to interpret whether a solution is viable or non-viable. (MP 4)

S1.A.7

Build and use graphic models to analyze and solve systems of two linear equations as well as systems of one linear equation and one exponential equation in two variables and interpret their solutions. (MP 4)

S1.A.8

Build and use graphic models to show the solutions to a linear inequality in two variables as a half-plane, and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes. (MP 4)

Functions (F)

Describe and represent arithmetic and geometric sequences with linear and exponential functions using function notation. Analyze and contextualize functions and their features across different representations. Develop, assess, and combine existing models to construct functions that relate two quantities. Construct and compare linear and exponential models and solve problems.

S1.F.1

Construct and communicate clear arguments to justify whether a relation is a function. (MP 3)

S1.F.2

Understand the structure of function notation, if f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x . The graph of f is the graph of the equation $y = f(x)$. (MP 7)

S1.F.3

Evaluate functions for inputs in their domains and interpret statements that use function notation *in terms of a context*. (MP 2)

S1.F.4

Build and use explicit and recursive equations to *model* arithmetic and geometric sequences using function notation. *Describe and represent* the domain of these models as a subset of the integers. (MP 4, 7)

S1.F.5

Understand and interpret the features of a function represented graphically, numerically and symbolically using interval notation and inequalities by *applying and removing context*. Focus on these key features: domain, range, intervals of increase and/or decreasing, location of absolute maximum and/or absolute minimum, and intercepts. *Build graphic models* that satisfy given key features. (MP 2, 4)

S1.F.6

Build representations that show key features of linear and exponential functions expressed symbolically. *Select and use appropriate tools* to model with and without technology. (MP 4, 5)

S1.F.7

Compare and contrast the properties of linear and exponential functions (represented in different ways). *Formulate and ask questions* to highlight the

similarities and differences between the functions. (MP 1)

S1.F.8

Build a function that *models* linear or exponential relationships. Appropriately use explicit and recursive rules to model these relationships and translate between the two forms. (MP 4)

S1.F.9

Construct arguments that *use the structures and patterns* of relationships to connect arithmetic sequences to linear functions and geometric sequences to exponential functions. (MP 3, 7)

S1.F.10

Use structures and patterns to identify the effect of k on the graph when replacing $f(x)$ by $f(x) + k$. Explore specific values of k for linear and exponential functions in and out of context. (MP 7)

S1.F.11

Communicate clear and reasonable arguments to distinguish between situations that can be modeled with linear functions, exponential functions, or neither. Connect the *structure* of linear and exponential functions with their parameters, ($y=mx+b$, $y=b^x(a)$). *Justify* that a quantity increasing exponentially eventually exceeds a quantity increasing linearly. (MP 3, 7)

Geometry (G)

Use prior knowledge of rigid motions to establish and justify the concept of congruence. Apply rigid motions and their properties to prove triangle congruence criteria and derive geometric theorems. Understand geometric constructions as both a tool for understanding transformations and as a foundation for logical reasoning. Connect algebraic and geometric processes by justifying figure attributes on the coordinate plane.

S1.G.1

Describe and represent the underlying structure of translations, rotations and

reflections, in terms of angles, circles, perpendicular lines, parallel lines, and line segments. (MP 7)

S1.G.2

Construct and clearly communicate definitions of the rigid transformations to show that these transformations are functions that take points in the plane as inputs and give corresponding points as outputs. (MP 3)

S1.G.3

Select and use tools to strategically perform rigid transformations. *Attend to precision* when identifying and describing the transformation or the sequence of transformations to determine whether or not two figures are congruent. Understand that the image created from a rigid transformation or a sequence of rigid transformations is congruent to the pre-image. (MP 5, 6)

S1.G.4

Construct and communicate clear and reasonable arguments about reflection and rotational symmetries of parallelograms and regular polygons. Use reflections and rotations to informally *justify* attributes of parallelograms including rhombus, rectangles and squares. (MP 3)

S1.G.5

Precisely construct geometric objects including equilateral triangle, rhombus, square, parallel line, perpendicular bisector, and angle bisector. *Communicate clearly* about the use of geometric construction tools and analyze the underlying structure of geometric objects as revealed by the tools. (MP 3)

S1.G.6

Construct, justify and communicate clear arguments that show how the criteria for triangle congruence (ASA, SAS, SSS) can be established using the definition of congruence in terms of rigid motions. (MP 3)

S1.G.7

Justify whether or not a quadrilateral has the attributes of a square, rectangle,

rhombus or parallelogram. Connect the Pythagorean Theorem to the distance formula and utilize slope along with distance as a means for *justification*. (MP 3)

Data Science (D)

Investigate and analyze situations with large data sets. Describe, represent, and interpret data on a single quantitative variable and on two quantitative variables and evaluate results. Identify ways to refine investigative questions, data collection, visualization, or analysis.

S1.D.1

Ask statistical questions to investigate situations that can be explored using random samples from populations to make inferences about differences between two populations or associations between two quantitative variables. Explain and *justify* the distinction between correlation and causation. (MP 1, 3)

S1.D.2

Select the appropriate statistical tools to create a data collection plan. Collect and organize primary data for the statistical investigative question of interest or determine the validity that the data collected is useful to answer the statistical question of interest when using secondary data. (MP 5)

S1.D.3

Compare two or more distributions with *precision* by selecting graphical displays (dot plots, histograms, and modified box plots to show outliers) that highlight features of interest. Analyze data by comparing measures of center (mean and median) and measures of variability (range, inter-quartile range and standard deviation) that are appropriate for the shape (skew, symmetry, outliers, modes) of the data distribution. Recognize how standard deviation builds on the mean absolute deviation and is another measure of how data values vary in a distribution. (MP 6)

S1.D.4

Analyze data to explore the association between two quantitative variables by using a scatterplot to determine and describe patterns of association such as

clustering, positive or negative association, linear or nonlinear association, and effects of outliers. Use technology to find and interpret the correlation coefficient and use it to assess the strength of the linear relationship. *Attend to precision and reasonableness* with calculations. (MP 6)

S1.D.5

Analyze and use statistical evidence to *evaluate results* and answer statistical investigative questions about the differences between two or more population parameters. Identify ways to refine the question, data collection, visualization, or analysis. (MP 8)

S1.D.6

Justify statistical reasoning to *evaluate results* from analyses to answer the statistical investigative question about associations between two quantitative variables. For scatter plots that suggest a linear association, represent the relationship with a line of best fit and use the model of the linear equation to solve problems, including interpreting the slope and intercept in the context of the data. *Justify* statistical reasoning and results to others in a variety of formats including verbal, written, and visual. (MP 3, 8)

Secondary Math 1: Extended Topics

Matrices

Perform operations on matrices and use matrices in applications. Solve systems of equations.

S1.M.1

Add, subtract, and multiply matrices of appropriate dimensions using *algebraic tools* for smaller matrices and *technology* for larger matrices. (MP 5)

S1.M.2

Use matrices to *represent* and manipulate data (e.g., to represent payoffs or incidences relationships in a network). Multiply matrices by scalars to produce new

matrices and *make sense* of this product by connecting it *with and without a context*. (MP 2, 4)

S1.M.3

Communicate understanding that, unlike multiplication of numbers, matrix multiplication for square matrices is not a commutative operation, but still satisfies the associative and distributive properties. (MP 3)

S1.M.4

Communicate understanding that the zero and identity matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers. The determinant of a square matrix is nonzero if and only if the matrix has a multiplicative inverse. (MP 3)

S1.M.5

Use 2×2 matrices to *model* transformations of the plane, and *interpret* the absolute value of the determinant in terms of area. (MP 4, 7)

S1.M.6

Model a system of linear equations as a single-matrix equation in a vector variable. (MP 4)

S1.M.7

Solve systems of linear equations up to three variables using matrix row reduction and technology *as tools*. (MP 5)

S1.M.8

Find the inverse of a matrix if it exists *using technology or algebraic tools*, and use the inverse to solve systems of linear equations (using technology for matrices of dimensions 3×3 or greater). (MP 5)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in

future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of Secondary I students will be able to:

- Create and solve equations and inequalities. (A)
- Solve systems of equations and inequalities with pairs of linear equations and inequalities in two variables. (A)
- Create explicit and recursive equations to model arithmetic and geometric sequences. (F)
- Interpret and analyze key features of graphs that model relationships between two variables for linear and exponential functions. (F)
- Build and interpret multiple representations of linear and exponential functions. (F)
- Establish triangle congruence criteria which will be used to prove other theorems. (G)
- Describe the transformation or the sequence of transformations to prove two figures are congruent. (G)
- Describe, represent, and interpret data on a single variable and on two quantitative variables and evaluate results. (D)

Standards: Secondary Math II

Introduction

In Secondary Math I through Secondary Math III the major works of each grade focus on learning to create, interpret, manipulate, and solve algebraic equations. Students develop an understanding of functions and learn how to compare and represent functions as defined by rates of change, multiple representations and building functions. Students learn to define functions, describe their features and transformations. Students understand, apply and prove congruence of similarity as defined in terms of geometric transformations. Students also investigate statistical questions by creating a plan to collect data for a non-biased sample from a population for primary data or ask questions about how secondary data was collected and whether it is useful. They will analyze data using graphical displays and numerical summaries of the sample data and use the evidence from that analysis to answer the statistical question of interest.

In Secondary Math II instructional time should focus on five major works: (1) solving algebraic equations (linear, exponential and quadratic); (2) understanding, comparing and representing functions; (3) describing characteristics of functions; (4) proving congruence and similarity in terms of geometric transformations; and (5) analyzing and interpreting data that can be used to answer statistical questions of interest related associations between two quantitative variables.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In high school, students formulate and ask questions to highlight the difference between various function types. Students ask targeted questions about univariate data displays to explore mathematical ideas. Students ask questions about the underlying structure of geometric objects revealed by geometric constructions.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In high school, students contextualize and decontextualize functions to interpret their properties, connecting symbolic representations to meaningful situations. Students interpret the features of a function represented graphically, numerically and symbolically by applying and removing a context. Students interpret the parts of an expression in context to make sense of the underlying structure of polynomial and rational expressions.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

In high school, students construct, justify, and communicate clear and reasonable arguments about reflection and rotational symmetries of parallelograms and regular polygons. Students construct, justify and communicate proof of the Pythagorean Theorem using triangle similarity. Students construct arguments to distinguish between situations that can be modeled by various function types. They will construct arguments to justify claims such as why exponential growth eventually surpasses linear, quadratic or the growth in any other polynomial function.

Mathematical Practice 4: Build and use models

In high school, students build and use models in two primary ways. One of these is to use models to connect mathematical concepts to one another. Another way that students use models in high school is to model real-world phenomena.

Students create and use verbal, contextual, visual, symbolic, and physical models to connect mathematical ideas and enhance their understanding. In high school students use these models to describe and represent patterns and relationships to compare function types and connect mathematical ideas between them.

To model real-world phenomena, students engage in mathematical and statistical modeling to represent, analyze, and predict real-world situations. In high school students use geometric shapes, their measures, and their properties to model real world objects and apply geometric methods to solve design problems.design problems.

Mathematical Practice 5: Select and use tools appropriately and strategically

In high school, students learn to select and leverage multiple types of tools while engaging in and applying mathematics. Opportunities to leverage tools include, but are not limited to, selecting appropriate algebraic tools to solve linear, exponential, or quadratic equations for a variable. Students select and use appropriate tools to build representations for various function types with and without technology. Students use mathematical ideas as a tool to validate the appropriateness and usefulness of a model.

Mathematical Practice 6: Attend to precision and reasonableness

In high school, students attend to precision and reasonableness when analyzing data to compare two or more distributions, which includes selecting appropriate graphical displays and analyzing measures of center and variability. Students attend to precision and reasonableness when exploring associations between two quantitative variables, using tools like scatter plots and correlation to evaluate the reasonableness and strength of models. Students attend to precision of language and notation while constructing arguments and carefully evaluating the reasonableness of observed ideas and processes when exploring transformations of functions.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In high school, students describe the structures of linear and exponential expressions by identifying whole expressions being made up of parts, like terms and factors. Students describe and represent underlying structures to help define dilations and similar shapes, and then use these structures to solve problems. Students use models to explore and describe attributes of the structure, patterns and relationships of inverses for various function types.

Mathematical Practice 8: Make conjectures and evaluate the results

In high school, students develop and assess conjectures as they form hypotheses and assess their validity when evaluating results derived from statistical analyses to

answer investigative questions. Students make conjectures about the reasonableness and strength of the model they choose to describe the association between two quantitative variables. Students develop, assess, and evaluate conjectures about properties of exponents for rational exponents.

Standards: Secondary Math II

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Algebra (A)

Interpret the structure and patterns of expressions, extending analysis to highlight different aspects of quadratic functions. Build and manipulate linear and quadratic polynomials using basic operations. Create and solve inequalities describing linear, exponential, and quadratic relationships. Justify solutions to equations, inequalities, and systems as a process of reasoning and tool knowledge.

S2.A.1

Use the structure of quadratic and exponential expressions by identifying parts of the expression and interpret in *context* (ie. Use vertex form of a quadratic to identify the maximum height of an object flying through the air). *Use algebraic tools* to produce equivalent forms that reveal different properties. (MP 2, 5, 7)

S2.A.2

Use addition, subtraction and multiplication to *build* new linear and quadratic functions. (MP 4)

S2.A.3

Build symbolic models of linear and quadratic equations and inequalities, and use them to solve problems *in and out of context*. (MP 3, 4)

S2.A.4

Select and use algebraic and technologic tools to strategically solve quadratic equations and inequalities in one variable. Algebraic tools include taking square roots, completing the square, the quadratic formula, and factoring. (MP 5)

S2.A.5

Select and use algebraic and technologic tools to strategically solve a system of equations consisting of a linear equation and a quadratic equation in two variables. Algebraic tools, including factoring and the quadratic formula, should be used in simpler cases, and technologic tools in more complicated cases. (MP 5)

Number System (NS)

Extend the understanding of integer exponents to encompass rational exponents and explore how this relationship can be used to see patterns, reason about, and solve real world problems. Extend the number system to include all complex numbers. Build on the understanding of operations of real numbers to include imaginary numbers. Emphasize the essential role of complex numbers in solving quadratic equations by satisfying the conditions for the Fundamental Theorem of Algebra.

S2.NS.1

Extend *understanding of the structure* of integer exponent properties to rational exponents. (MP 8)

S2.NS.2

Use the properties of exponents as *tools* to rewrite expressions involving radicals and rational exponents in equivalent forms. (MP 5)

S2.NS.3

Use the Fundamental Theorem of Algebra to *construct arguments* that verify that the solutions to any quadratic equation will always be numbers within the set of complex numbers and will have the form $a + bi$ where a and b are real numbers. (MP 3)

S2.NS.4

Build and use models to solve quadratic equations with real coefficients that have complex solutions, rewriting x^2+4 as $(x + 2i)(x - 2i)$. (MP 4)

Functions (F)

Describe and represent functional relationships and their features. Analyze functions using different representations and contextualize functions and their features when appropriate. Building a function that models a quadratic relationship between two quantities. Develop an understanding of how existing models can be combined to build new functions. Construct and compare linear, quadratic, and exponential models.

S2.F.1

Understand and interpret the features of a function represented graphically, numerically and symbolically using interval notation and inequalities by *applying and removing context*. Focus on these key features: domain, range, intervals of increase and/or decrease, location of absolute maximum and/or absolute minimum, and intercepts. *Build graphic models* that satisfy given key features. (MP 2, 4)

S2.F.2

Determine the average rate of change of a function over a closed interval while attending to precision and reasonableness. Connect the average rate of change with *context* appropriately. (MP 2, 6)

S2.F.3

Build graphic representations that show key features of quadratic, linear, exponential, absolute value and piecewise functions expressed symbolically. *Select and use appropriate tools* to model with and without technology. (MP 4, 5)

S2.F.4

Compare and contrast the properties of quadratic, linear, exponential, absolute value and piecewise functions (represented in different ways), including zeros, extreme values, symmetry and percent rate, when appropriate. *Formulate and ask questions* to highlight the similarities and differences between function types. (MP 1)

S2.F.5

Select and use algebraic tools to create different but equivalent forms of functions that highlight different properties of the function. *Contextualize and decontextualize* these functions to interpret these properties. (MP 2, 5)

S2.F.6

Build a function that models a quadratic relationship. Use *structures and patterns* to build an equation that models explicit reasoning, or a recursive process. *Attend to the precision* of notation and labeling while building and using these models. (MP 4, 6, 7)

S2.F.7

Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(x+k)$ by exploring specific values of k for quadratic and absolute value functions in and out of context. *Attend to precision* of language and notation while *constructing arguments* and carefully evaluate whether the ideas and processes observed during exploration are *reasonable*. (MP 3, 6)

S2.F.8

Communicate clear and reasonable arguments to distinguish between situations that can be modeled with quadratic, exponential, and linear functions. Interpret the *structure* of quadratic functions written in different forms with the features of their graphs. (MP 3, 7)

Geometry (G)

Prove geometric theorems using rigid motions and triangle congruence criteria. Develop and apply dilation and similarity to establish right triangle trigonometric ratios and solve real-world problems. Understand all circles are similar to justify relationships between angles, lines, and segments, and define radian measure. Describe circles algebraically on the coordinate grid, connecting to the Pythagorean Theorem and transformations. Explain how area and volume formulas scale with similarity transformations.

S2.G.1

Construct, justify and communicate clear and reasonable arguments to prove geometric theorems. Support refinement of reasoning *by asking questions*. Develop flexibility in creating logical arguments and proofs of various formats, including: narrative paragraphs, flow diagrams, two-column format, and diagrams without words. (MP 1, 3)

Proofs should focus on:

- a. theorems about lines and angles; vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.
- b. theorems about triangles; measures of interior angles of a triangle sum to 180° ; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.
- c. theorems about parallelograms; opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals.

S2.G.2

Describe and represent the underlying structures and properties that define dilations and similar shapes. Use the structures and properties of dilation and similarity to solve problems. (MP 7)

S2.G.3

Build and use models that include congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures. *Construct, justify and communicate* a clear and reasonable proof of the Pythagorean Theorem using triangle similarity. (MP 3, 4)

S2.G.4

Describe and represent side ratios in right triangles based upon the *underlying*

structure of similarity. Connect consistency across similar right triangles to definitions of trigonometric ratios for acute angles. (MP 7)

S2.G.5

Verify, justify and communicate the relationships that exist between trigonometric ratios and trigonometric identities. Keep the focus on the relationship between sine and cosine of complementary angles, the Pythagorean Identity, and the tangent ratio in terms of sine and cosine. (MP 3)

S2.G.6

Flexibly, accurately, and efficiently use trigonometric ratios and the Pythagorean Theorem to solve *real-world and mathematical problems* that can be *modeled* with right triangles. (MP 2, 4)

S2.G.7

Construct, justify and communicate a clear and reasonable argument that all circles are similar. *Connect the underlying structures* of similarity to relationships between angles, segments and arcs within circles. (MP 3, 7)

S2.G.8

Describe and represent structures and patterns between inscribed angles, radii, and chords. Relationships include the relationships between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle. (MP 7)

S2.G.9

Describe and represent, using similarity, the definition of a radian as the ratio of arc length to radius. Create a distinction between arc length and arc measure and be able to *attend to precisions* while relating each of these to radian measure or the formula for the area of a sector. (MP 6, 7)

S2.G.10

Use structures and patterns to work with equations of circles, find different forms of the equations and different defining features of the circle, including the center,

radius, and points located on the circle. Use right triangles with the same hypotenuse length, and the Pythagorean Theorem to derive the equation of a circle. (MP 7)

S2.G.11

Attend to precision and reasonableness with respect to area and volume formulas (circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone) by applying informal arguments about how area and volume scale under similarity transformations. When scale factor k is applied to a figure, area scales by k^2 and volume scales by k^3 . (MP 6)

S2.G.12

Attend to precision and reasonableness while using volume formulas for cylinders, pyramids, cones, and spheres to solve problems. (MP 6)

Data Science (D)

Investigate and analyze situations with large data sets. Describe, represent, and interpret data on two quantitative variables and evaluate results. Use linear, exponential and quadratic functions as models. Identify ways to refine investigative questions, data collection, visualization, or analysis.

S2.D.1

Ask statistical questions to investigate linear, exponential, and quadratic associations between two quantitative variables. (MP 1)

S2.D.2

Select the appropriate statistical tools to create a data collection plan. Collect and organize primary data to investigate the association between two variables and make conjectures. For secondary data, determine if data collected are useful to answer the statistical question of interest. (MP 5)

S2.D.3

Analyze data to explore the association between two quantitative variables. Use scatter plots to determine and explain patterns of association. Use technology to find and interpret the correlation coefficient and *evaluate the reasonableness* and

strength of the model used. Determine whether a linear, exponential or quadratic function is the most *reasonable* model for the data. (MP 6, 8)

S2.D.4

Use the statistical evidence to *evaluate results* from analyses to answer questions about associations between two quantitative variables. Identify ways to refine investigative questions, data collection, visualization, or analysis. Represent the relationship with a curve of best fit and use the model of the equation to solve problems. *Justify* statistical reasoning and results to others in a variety of formats including verbal, written, and visual. (MP 3, 8)

Secondary Math II: Extended Topics

Vectors

Represent and model with vector quantities. Perform operations on vectors.

S2.V.1

Recognize vector quantities as having both magnitude and direction. *Represent* vector quantities by directed line segments, and use appropriate symbols for vectors and their magnitudes. (MP 7)

S2.V.2

Find and *represent* the components of a vector by subtracting the coordinates of an initial point from the coordinates of a terminal point. (MP 7)

S2.V.3

Add and subtract vectors and multiply a vector by a scalar. *Make sense* of the operations by connecting *with and without a context*. (MP 2)

S2.V.4

Multiply a vector (regarded as a matrix with one column) by a matrix of suitable dimensions to produce another vector. Work with matrices as transformations of vectors. *Make sense* of this product by connecting it *with and without a context*. (MP 2)

S2.V.5

Solve *real world and mathematical problems* involving velocity and other quantities that can be represented by vectors. (MP 2)

Number System

Perform arithmetic operations with complex numbers. Represent complex numbers and their operations on the complex plane.

S2.NS.5

Find the conjugate of a complex number; use conjugates to find moduli and quotients of complex numbers. *Represent* the conjugate and moduli on the complex plane. (MP 7)

S2.NS.6

Represent complex numbers on the complex plane in rectangular form, and *explain* why the rectangular form of a given complex number represents the same number. (MP 3, 4)

S2.NS.7

Represent addition, subtraction, and multiplication geometrically on the complex plane; use properties of this representation for computation. (MP 4)

Geometry

Translate between the geometric description and the equation for a conic section.

S2.G.13

Derive the equation of a parabola given a focus and directrix. (MP 3)

S2.G.14

Derive the equations of ellipses and hyperbolas given the foci, using the fact that the sum or difference of distances from the foci is constant. (MP 3)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of Secondary II, students will be able to:

- Create and interpret equivalent forms of quadratic expressions to reveal different properties of interest. (A)
- Solve quadratic equations and inequalities. (A)
- Compare different representations for linear, exponential and quadratic functions. (F)
- Build multiple representations of quadratic functions. (F)
- Interpret and analyze key features of quadratic functions. (F)
- Use the definition of congruence and triangle congruence criteria to create logical arguments for geometric theorems. (G)
- Develop properties of segments and angles related to circles (G).
- Develop trigonometric ratios for sides of right triangles. (G)
- Describe, represent, and interpret data on two quantitative variables and evaluate results. (D)

Utah's Secondary Mathematics Pathways

The Secondary III course has been divided into two distinct parts to better meet the needs of every student in the state than what a single course can provide.

The first part of Secondary III includes the mathematics that all students would benefit from engaging with (Math for All). These standards are intentionally designed to build the core mathematical knowledge—specifically in algebra, functions, and data science—that ensures all students have the critical and essential skills necessary regardless of their plans after high school. The second part of Secondary III provides students and families with a choice that can better prepare them for their post-secondary aspirations.

The Calculus Pathway is Utah's first option, designed specifically to prepare students for careers in business, biological and physical sciences, engineering and/or mathematics. This course focuses heavily on the core algebraic and trigonometric concepts necessary to equip students with the conceptual understanding and procedural skills necessary for the study of Calculus and other advanced mathematics and science courses. It is also aligned with the courses Utah Institutions of Higher Education (IHE) offer for the above majors, including Math 1050/1060 and Calculus (which can be taken concurrently enrolled or once the student reaches University). AP precalculus and AP Calculus courses are also aligned to this pathway.

Intermediate Algebra is an alternative course in this pathway for students interested in these same careers who prefer a more measured pace before tackling advanced mathematics. This course strengthens the foundational algebra skills necessary to prepare students for AP Pre-Calculus or Math 1050/1060 in the subsequent year.

The data science pathway is the next available option, specifically designed to prepare students for careers in fields such as history, nursing, psychology and the social sciences. This course concentrates on the descriptive and statistical methods essential for understanding and interpreting data. It provides the foundation necessary for students to pursue concurrent enrollment in Stat 1040 or AP Statistics.

The final option involves the creation of a new pathway that builds on the Math for All content towards another career goal. This pathway will eventually include math courses from a variety of CTE backgrounds, alongside the current Applied and Advanced Foundational courses currently acceptable as graduation requirements when a student opts out of Secondary III. The vision going forward is that these Board-approved versions of Secondary III would replace the opt out provision currently in place for the Secondary III course.

LEAs across the state will have flexibility in how to design their schedules around these Secondary III courses, running them as full year experiences or two half year classes, depending on their needs. USBE staff will work with USHE and Utah Institutions of Higher Education to find further alignment and explore the possibility of extended versions of these Secondary III courses that would allow students to earn additional credit or gain access to accelerated coursetaking options upon completion.

What follows are the standards our writing committee has developed for the core pathways. The USBE Mathematics team will work with LEA math communities across the state over the next few years to develop further Secondary III course pathways related to the third option described above.

Standards: Secondary Math III (Math for All Students)

Introduction

In Secondary Math I through Secondary Math III the major works of each grade focus on learning to create, interpret, manipulate, and solve algebraic equations. Students develop an understanding of functions and learn how to compare and represent functions as defined by rates of change, multiple representations and building functions. Students learn to define functions, describe their features and transformations. Students understand, apply and prove congruence of similarity as defined in terms of geometric transformations. Students also investigate statistical questions by creating a plan to collect data for a non-biased sample from a population for primary data or ask questions about how secondary data was collected and whether it is useful. They will analyze data using graphical displays and numerical summaries of the sample data and use the evidence from that analysis to answer the statistical question of interest.

The Secondary Math III: Math for All Students standards are foundational content embedded within every Secondary III pathway. These standards are intentionally designed to build the core mathematical knowledge—specifically in algebra, functions, and data science—that ensures all students have the essential skills to access and succeed in any subsequent pathway.

This core foundation equips every student with the mathematical literacy necessary to be an informed and productive citizen.

In Secondary Math III instructional time should focus on four major works: (1) solving algebraic equations (polynomial, logarithmic, and radical); (2) understanding, comparing and representing functions - polynomial, exponential, logarithmic, and trig functions (sine and cosine); (3) describing characteristics of functions; (4) drawing and justifying conclusions from sample surveys, experiments, and observational studies.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In high school, students formulate and ask questions to highlight the difference between various function types. Students ask targeted questions about univariate data displays to explore mathematical ideas. Students ask questions about the underlying structure of geometric objects revealed by geometric constructions.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In high school, students contextualize and decontextualize functions to interpret their properties, connecting symbolic representations to meaningful situations. Students interpret the features of a function represented graphically, numerically and symbolically by applying and removing a context. Students interpret the parts of an expression in context to make sense of the underlying structure of polynomial and rational expressions.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

In high school, students construct, justify, and communicate clear and reasonable arguments about reflection and rotational symmetries of parallelograms and regular polygons. Students construct, justify and communicate proof of the Pythagorean Theorem using triangle similarity. Students construct arguments to distinguish between situations that can be modeled by various function types. They will construct arguments to justify claims such as why exponential growth eventually surpasses linear, quadratic or the growth in any other polynomial function.

Mathematical Practice 4: Build and use models

In high school, students build and use models in two primary ways. One of these is to use models to connect mathematical concepts to one another. Another way that students use models in high school is to model real-world phenomena.

Students create and use verbal, contextual, visual, symbolic, and physical models to connect mathematical ideas and enhance their understanding. In high school

students use these models to describe and represent patterns and relationships to compare function types and connect mathematical ideas between them.

To model real-world phenomena, students engage in mathematical and statistical modeling to represent, analyze, and predict real-world situations. In high school students use geometric shapes, their measures, and their properties to model real world objects and apply geometric methods to solve design problems.

Mathematical Practice 5: Select and use tools appropriately and strategically

In high school, students learn to select and leverage multiple types of tools while engaging in and applying mathematics. Opportunities to leverage tools include, but are not limited to, selecting appropriate algebraic tools to solve linear, exponential, or quadratic equations for a variable. Students select and use appropriate tools to build representations for various function types with and without technology. Students use mathematical ideas as a tool to validate the appropriateness and usefulness of a model.

Mathematical Practice 6: Attend to precision and reasonableness

In high school, students attend to precision and reasonableness when analyzing data to compare two or more distributions, which includes selecting appropriate graphical displays and analyzing measures of center and variability. Students attend to precision and reasonableness when exploring associations between two quantitative variables, using tools like scatter plots and correlation to evaluate the reasonableness and strength of models. Students attend to precision of language and notation while constructing arguments and carefully evaluating the reasonableness of observed ideas and processes when exploring transformations of functions.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In high school, students describe the structures of linear and exponential expressions by identifying whole expressions being made up of parts, like terms and factors. Students describe and represent underlying structures to help define

dilations and similar shapes, and then use these structures to solve problems. Students use models to explore and describe attributes of the structure, patterns and relationships of inverses for various function types.

Mathematical Practice 8: Make conjectures and evaluate the results

In high school, students develop and assess conjectures as they form hypotheses and assess their validity when evaluating results derived from statistical analyses to answer investigative questions. Students make conjectures about the reasonableness and strength of the model they choose to describe the association between two quantitative variables. Students develop, assess, and evaluate conjectures about properties of exponents for rational exponents.

Standards: Secondary Math III (Math for All Students)

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Algebra (A)

Interpret the structure of expressions. Extend to polynomial expressions. Create equations and inequalities that describe relationships, using all available types of functions to create such equations. Understand solving equations as a process of reasoning and explain the reasoning. Represent and solve equations and inequalities graphically.

S3.A.1

Interpret polynomial expressions given in factored form or standard form that represent a quantity in terms of a context. *Represent* polynomial expressions by using *technological tools* to produce equivalent forms (standard or factored) that reveal different properties, and *interpret one or more of their parts as a single entity*. (MP 2, 5, 7)

S3.A.2

Create equations and inequalities in one variable to *model a context* and use them to solve problems. Include equations arising from linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, square root and cube root functions. (MP 3)

S3.A.3

For exponential models, express as a logarithm the solution to $f(t)=ab^{ct} = d$ where a , c , and d are numbers, and the base b is 2 or 10; evaluate the logarithm using *technological tools*. (MP 2)

S3.A.4

Solve an equation of the form $f(x)=c$ for a simple function f that has an inverse. *Use the attributes of inverse relationships* to write inverse expressions. Include linear, quadratic, simple cubic (e.g., $f(x)=2x^3$), simple exponential, logarithmic, square root, and cube root functions. (MP7)

Functions (F)

Describe, represent, and analyze functional relationships and their features across different representations, contextualizing and interpreting function expressions in terms of the modeled situation. Build, refine, and assess models relating two quantities. Construct and compare linear, quadratic, polynomial, and exponential functions to solve problems. Model periodic behavior with sine and cosine functions.

S3.F.1

Understand and interpret the features of polynomial, radical or logarithmic functions represented graphically using interval notation and inequalities by *applying and removing context*. Focus on these key features: domain, range, intervals of increase and/or decrease, location of absolute maximum and/or absolute minimum, intercepts and end behavior. *Build graphic models* that satisfy given key features. (MP 2, 4)

S3.F.2

Build and use models of periodic phenomena with sine and cosine functions that connect real world contexts with amplitude, frequency, and midline. *Use structures and patterns* to support understanding of a domain extended beyond 0 to 90 degrees, or 0 to $\frac{\pi}{2}$ radians. (MP 4, 7)

S3.F.3

Understand and interpret key features (period, midline and amplitude) of sine and cosine functions represented graphically. *Build graphic models* that satisfy the given key features. (MP 4)

S3.F.4

Build graphical representations that show key features of polynomial, square root, cube root, exponential, logarithmic, and trigonometric (sine and cosine) functions expressed symbolically. *Select and use appropriate tools* to graph, by hand for simple cases, and using technology for more complicated cases. (MP 4, 5)

S3.F.5

Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(x+k)$ by exploring specific values of k for polynomial, square root, cube root, exponential, logarithmic, and trigonometric functions in and out of context. *Attend to precision* of language and notation while *constructing arguments* and carefully evaluate whether the ideas and processes observed during exploration are *reasonable*. (MP 3, 6)

S3.F.6

Use the attributes of inverse relationships to build models (tables, graphs, verbal descriptions and equations) for the inverses of linear, exponential, and quadratic functions. (MP 4, 7)

S3.F.7

Determine which function type (polynomial, square root, cubic root, exponential, or trigonometric) best models a given real world context. (MP 4)

S3.F.8

Justify that a quantity increasing exponentially eventually exceeds a quantity

increasing linearly or quadratically, or (more generally) as a polynomial function.
(MP 3)

Geometry (G)

Apply geometric reasoning to real world modeling situations.

S3.G.1

Use geometric shapes, their measures, and their properties to *model* real world objects and solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost). *Use these models to ask targeted and probing questions* with respect to area and volume *in context*. (MP 1, 2, 4)

S3.G.2

Apply concepts of density based on area and volume in *modeling* situations. (MP4)

S3.G.3

Attend to precision and reasonableness while using volume formulas for cylinders, pyramids, cones, and spheres to solve problems. (MP 6)

Data Science (D)

Use probability models to interpret data and compute probabilities of compound and conditional events. Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages using technology. Summarize, represent, and interpret data on a single categorical or quantitative variable. Draw and justify conclusions from sample surveys, experiments, and observational studies. Employ simulation to compute p-values and determine statistical significance.

S3.D.1

Describe and represent structures and patterns of data on two categorical variables. *Attend to precision and reasonableness* when summarizing categorical data in two-way frequency models, and *construct, justify, and communicate clear and reasonable arguments* about possible associations and trends in the data. (MP 3, 6, 7)

S3.D.2

Build and use probability models including organized lists, venn-diagrams, tree diagrams, and two-way tables to find or estimate probabilities of compound or conditional events. (MP 4)

S3.D.3

Use multiple representations as tools to describe and represent structure to build understanding of the addition rule, $P(A \cup B) = P(A) + P(B) - P(A \cap B)$. Understand the conditional probability of A given B as $P(A \cap B)/P(B)$. Interpret independence of A and B as saying that the conditional probability of B given A is the same as the probability of B. (MP 7)

S3.D.4

Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. *Select and use physical and/or tech tools* to estimate areas under the normal curve. (MP 5)

S3.D.5

Formulate statistical investigative questions that are either summary-based or comparative for surveys, observational studies, or experiments using primary and/or secondary data. *Select appropriate statistical tools* to develop a plan for data collection and analysis to address these questions. (MP 1, 5)

S3.D.6

Select appropriate statistical tools to implement a data collection plan for primary data related to an investigative question. When using secondary data, assess its validity and relevance to answering the question. *Construct an argument* justifying the chosen data collection method (survey, observational study or experiment). Understand and apply best practices for designing sample surveys, experiments, and observational studies. (MP 3, 5)

S3.D.7

Attend to precision and reasonableness when summarizing and organizing collected

data to answer an investigative question using tables, graphs, and numerical summary statistics. *Use models* from sample data to estimate population means or proportions. Employ simulation models for random sampling to determine approximate sampling distributions and compute p-values from those distributions. (MP 4, 6)

S3.D.8

Use statistical evidence from the analyses to *evaluate results* and answer questions. Identify ways to refine investigative questions, data collection, visualization, or analysis. *Justify* outcomes or estimates of population characteristics, considering their plausibility compared to chance variation, in a variety of formats (verbal, written, visual). Communicate the interpretation of simulated p-values and determine statistical significance. (MP 3, 8)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of Secondary III (Math for All), students will be able to:

- Solve simple equations (square root, cube root and polynomial). (A)
- Understand, distinguish between and represent functions including polynomial, trigonometric, logarithmic, and inverse functions. (F)
- Interpret and analyze key features of linear, quadratic, exponential, polynomial, logarithmic and trigonometric functions (sine and cosine). (F)
- Use congruency, similarity and right triangle ratios to extend the domain of trigonometric functions (sine and cosine). (F)
- Compute probabilities for compound and conditional events and use them to

interpret data. (D)

- Draw and justify conclusions from sample surveys, experiments, and observational studies. (D)

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Standards: Secondary Math III (Intermediate Algebra Pathway)

Introduction

In Secondary Math I through Secondary Math III the major works of each grade focus on learning to create, interpret, manipulate, and solve algebraic equations. Students develop an understanding of functions and learn how to compare and represent functions as defined by rates of change, multiple representations and building functions. Students learn to define functions, describe their features and transformations. Students understand, apply and prove congruence of similarity as defined in terms of geometric transformations. Students also investigate statistical questions by creating a plan to collect data for a non-biased sample from a population for primary data or ask questions about how secondary data was collected and whether it is useful. They will analyze data using graphical displays and numerical summaries of the sample data and use the evidence from that analysis to answer the statistical question of interest.

The Secondary Math III Intermediate Algebra Pathway is designed for students who plan to pursue college degrees in STEM and business fields (including engineering, physical and biological sciences, and mathematics) but prefer a more deliberate pace before advancing to Calculus.

This course concentrates on the essential foundational algebra concepts needed to build a strong mathematical base. It positions students for success in AP Pre-Calculus or College Algebra/Trigonometry the following academic year.

The Intermediate Algebra Pathway shares but does not encompass all standards from the Calculus Pathway course. As a result, some of the Intermediate Algebra Pathway standards are nonsequential. Standards with the prefix S3 represent standards from the *Math for All Students* content. Standards with the prefix CS3 are specific to the Calculus Pathway course.

In the Secondary Math III Intermediate Algebra Pathway, instructional time should focus on four major works: (1) understanding, comparing, and representing polynomial and rational functions; (2) understanding, comparing, and representing

exponential and logarithmic functions; (3) understanding, and representing trigonometric functions; and (4) creating, interpreting, manipulating, and solving algebraic equations.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In high school, students formulate and ask questions to highlight the difference between various function types. Students ask targeted questions about univariate data displays to explore mathematical ideas. Students ask questions about the underlying structure of geometric objects revealed by geometric constructions.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In high school, students contextualize and decontextualize functions to interpret their properties, connecting symbolic representations to meaningful situations. Students interpret the features of a function represented graphically, numerically and symbolically by applying and removing a context. Students interpret the parts of an expression in context to make sense of the underlying structure of polynomial and rational expressions.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

In high school, students construct, justify, and communicate clear and reasonable arguments about reflection and rotational symmetries of parallelograms and regular polygons. Students construct, justify and communicate proof of the Pythagorean Theorem using triangle similarity. Students construct arguments to distinguish between situations that can be modeled by various function types. They will construct arguments to justify claims such as why exponential growth eventually surpasses linear, quadratic or the growth in any other polynomial function.

Mathematical Practice 4: Build and use models

In high school, students build and use models in two primary ways. One of these is to use models to connect mathematical concepts to one another. Another way that students use models in high school is to model real-world phenomena.

Students create and use verbal, contextual, visual, symbolic, and physical models to connect mathematical ideas and enhance their understanding. In high school students use these models to describe and represent patterns and relationships to compare function types and connect mathematical ideas between them.

To model real-world phenomena, students engage in mathematical and statistical modeling to represent, analyze, and predict real-world situations. In high school students use geometric shapes, their measures, and their properties to model real world objects and apply geometric methods to solve design problems.

Mathematical Practice 5: Select and use tools appropriately and strategically

In high school, students learn to select and leverage multiple types of tools while engaging in and applying mathematics. Opportunities to leverage tools include, but are not limited to, selecting appropriate algebraic tools to solve linear, exponential, or quadratic equations for a variable. Students select and use appropriate tools to build representations for various function types with and without technology. Students use mathematical ideas as a tool to validate the appropriateness and usefulness of a model.

Mathematical Practice 6: Attend to precision and reasonableness

In high school, students attend to precision and reasonableness when analyzing data to compare two or more distributions, which includes selecting appropriate graphical displays and analyzing measures of center and variability. Students attend to precision and reasonableness when exploring associations between two quantitative variables, using tools like scatter plots and correlation to evaluate the reasonableness and strength of models. Students attend to precision of language and notation while constructing arguments and carefully evaluating the reasonableness of observed ideas and processes when exploring transformations of functions.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In high school, students describe the structures of linear and exponential expressions by identifying whole expressions being made up of parts, like terms and factors. Students describe and represent underlying structures to help define dilations and similar shapes, and then use these structures to solve problems. Students use models to explore and describe attributes of the structure, patterns and relationships of inverses for various function types.

Mathematical Practice 8: Make conjectures and evaluate the results

In high school, students develop and assess conjectures as they form hypotheses and assess their validity when evaluating results derived from statistical analyses to answer investigative questions. Students make conjectures about the reasonableness and strength of the model they choose to describe the association between two quantitative variables. Students develop, assess, and evaluate conjectures about properties of exponents for rational exponents.

Standards: Secondary III (Intermediate Algebra Pathway)

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Algebra (A)

Create equations that describe numbers or relationships, using all types of functions to create such equations. Interpret the structure of polynomial and rational expressions. Write expressions in equivalent forms to solve problems. Write expressions in equivalent forms to solve problems. Perform arithmetic operations on polynomials and understand the relationship between zeros and factors of polynomials. Rewrite rational expressions.

CS3.A.5 (Extension of S3.A.2)

Create equations and inequalities in one variable to *model a context* and use them to solve problems. Include equations arising from polynomial, exponential, rational and radical functions. (MP 3)

CS3.A.6 (Extension of S3.A.3)

For exponential models, express as a logarithm the solution to $f(t)=ab^{ct} = d$ where a , b , c , and d are numbers, $b>0$; evaluate the logarithm using *technological tools*. *Justify* and use the properties of logarithms to generate equivalent expressions, connecting them to the properties of exponents. (MP 2, 3)

CS3.A.7

Understand the inverse relationship between exponents and logarithms. Use this *relationship* to solve problems involving exponents and logarithms. (MP 7)

CS3.A.10

Add, subtract, multiply and divide polynomial and rational functions. *Justify* whether these operations result in new polynomial or rational functions. (MP 3)

CS3.A.11

Identify zeros of polynomial functions *using algebraic tools*, including factoring or the Remainder Theorem. (MP 5)

CS3.A.12

Expand and simplify polynomial sums, products, and powers using *structures and patterns*. (MP 7)

CSS3.A.13

Solve compound inequalities in one variable, including absolute value inequalities *using algebraic or technological tools*. (MP 5)

Number System (NS)

Perform operations with complex numbers and represent them on the complex plane. Apply complex numbers to polynomial identities and equations, emphasizing their essential role in satisfying the Fundamental Theorem of Algebra.

CS3.NS.2

Using the Fundamental Theorem of Algebra, *construct arguments* that verify the solutions to polynomial equations will always be numbers within the set of complex numbers and will have the form $a + bi$ where a and b are real numbers. (MP 3)

CS3.NS.3

Find solutions for polynomials that are limited to integer coefficients *using algebraic or technological tools*. (MP 5)

Functions (F)

Analyze functional relationships and their features using different representations, contextualizing and interpreting function expressions in terms of the modeled situation. Build, refine, and compare polynomial and exponential models to solve problems. Build new functions from existing functions. Extend the domain of trigonometric functions using the unit circle. Model periodic phenomena with trigonometric functions.

CS3.F.9 (Extension of S3.F.1)

Understand and interpret the features of polynomial, radical, rational or logarithmic functions represented graphically using interval notation and inequalities *by applying and removing context*. Focus on these key features: domain, range, intervals of increase and/or decreasing, location of absolute maximum and/or absolute minimum, intercepts, asymptotes, and end behavior. *Build graphic models* that satisfy given key features. (MP 2, 4)

CS3.F.10 (Extension of S3.F.2)

Build and use models of periodic phenomena with trigonometric functions that connect real world contexts with amplitude, frequency, and midline. *Use structures and patterns* to support understanding of a domain extended beyond 0 to 90 degrees, or 0 to $\frac{\pi}{2}$ radians. (MP 4, 7)

CS3.F.11 (Extension of S3.F.3)

Understand and interpret key features (period, midline and amplitude/asymptote)

of trigonometric functions represented graphically. *Build graphic models* that satisfy the given key features. (MP 4)

CS3.F.12 (Extension of S3.F.4)

Build graphical representations that show key features of polynomial, radical, exponential, logarithmic, rational and trigonometric functions expressed symbolically. *Select and use appropriate tools* to graph, by hand for simple cases, and use technology for more complicated cases. (MP 4, 5)

CS3.F.13 (Extension of S3.F.5)

Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, $f(x+k)$ by exploring specific values of k for polynomial, radical, exponential, logarithmic, rational, and trigonometric functions *in and out of context*. *Attend to precision* of language and notation while constructing arguments and carefully evaluate whether the ideas and processes observed during exploration are *reasonable*. (MP 3, 6)

CS3.F.16

Build a new function from a composition of functions that *models a relationship* between two quantities. (MP 4)

CS3.F.17

Verify by composition that one function is the inverse of another function. *Build an invertible function* from a non-invertible function by restricting the domain. (MP 4)

Geometry/Trigonometry (G)

Apply geometric reasoning to real world modeling situations. Apply prior understanding of trigonometric ratios to all types of triangles using the Law of Sines and Cosines. Build and use the unit circle to extend the domain of trigonometric functions.

CS3.G.4

Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles *with and without context*. (MP 2)

CS3.G.5

Use special triangles as tools to construct the unit circle with degrees and radians. Describe and represent patterns in the unit circle and use them as tools to evaluate the trigonometric functions at multiples of $\frac{\pi}{4}$ and $\frac{\pi}{6}$. (MP 5, 7)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of Secondary III (Intermediate Algebra), students will be able to:

- Solve equations for all families of functions (A)
- Describe, represent and build polynomials, using zeros and factors. (A)
- Solve equations (rational and radical) as well as inequalities including compound inequalities. (A)
- Understand, distinguish between, and represent functions including polynomial, rational, trigonometric, logarithmic, and inverse functions. (F)
- Interpret and analyze key features of linear, quadratic, exponential, polynomial, rational, logarithmic and trigonometric functions. (F)
- Use congruence, similarity and right triangle ratios to work with the unit circle, and trigonometric identities. (F)

Standards: Secondary Math III (Calculus Pathway)

Introduction

In Secondary Math I through Secondary Math III the major works of each grade focus on learning to create, interpret, manipulate, and solve algebraic equations. Students develop an understanding of functions and learn how to compare and represent functions as defined by rates of change, multiple representations and building functions. Students learn to define functions, describe their features and transformations. Students understand, apply and prove congruence of similarity as defined in terms of geometric transformations. Students also investigate statistical questions by creating a plan to collect data for a non-biased sample from a population for primary data or ask questions about how secondary data was collected and whether it is useful. They will analyze data using graphical displays and numerical summaries of the sample data and use the evidence from that analysis to answer the statistical question of interest.

The Secondary Math III Calculus Pathway is designed to establish the essential mathematical foundation for students pursuing college degrees in STEM and business fields, including engineering, physical and biological sciences, and mathematics.

The standards focus heavily on the core algebraic concepts necessary to equip students with the conceptual understanding and procedural skills necessary for the study of calculus and other advanced mathematics and science courses.

Completion of this pathway directly prepares students for introductory concurrent enrollment Calculus, AP Pre-Calculus, AP Calculus, or IB Math courses.

Within each domain, the standard numbering begins where the Secondary Math III *Math for All Students* standards conclude. Standards with the prefix S3 represent standards from the *Math for All Students* content. Standards with the prefix CS3 are specific to the Calculus Pathway course.

In the Secondary Math III Calculus Pathway, instructional time should focus on five major works: (1) understanding, comparing, and representing polynomial and

rational functions; (2) understanding, comparing, and representing exponential and logarithmic functions; (3) understanding and representing trigonometric functions; (4) creating, interpreting, manipulating, and solving algebraic equations; and (5) understanding and representing parametric and polar functions.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In high school, students formulate and ask questions to highlight the difference between various function types. Students ask targeted questions about univariate data displays to explore mathematical ideas. Students ask questions about the underlying structure of geometric objects revealed by geometric constructions.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In high school, students contextualize and decontextualize functions to interpret their properties, connecting symbolic representations to meaningful situations. Students interpret the features of a function represented graphically, numerically and symbolically by applying and removing a context. Students interpret the parts of an expression in context to make sense of the underlying structure of polynomial and rational expressions.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

In high school, students construct, justify, and communicate clear and reasonable arguments about reflection and rotational symmetries of parallelograms and regular polygons. Students construct, justify and communicate proof of the Pythagorean Theorem using triangle similarity. Students construct arguments to distinguish between situations that can be modeled by various function types. They construct arguments to justify claims such as why exponential growth eventually surpasses linear, quadratic or the growth in any other polynomial function.

Mathematical Practice 4: Build and use models

In high school, students build and use models in two primary ways. One of these is to use models to connect mathematical concepts to one another. Another way that students use models in high school is to model real-world phenomena.

Students create and use verbal, contextual, visual, symbolic, and physical models to connect mathematical ideas and enhance their understanding. In high school students use these models to describe and represent patterns and relationships to compare function types and connect mathematical ideas between them.

To model real-world phenomena, students engage in mathematical and statistical modeling to represent, analyze, and predict real-world situations. In high school students use geometric shapes, their measures, and their properties to model real world objects and apply geometric methods to solve design problems.

Mathematical Practice 5: Select and use tools appropriately and strategically

In high school, students learn to select and leverage multiple types of tools while engaging in and applying mathematics. Opportunities to leverage tools include, but are not limited to, selecting appropriate algebraic tools to solve linear, exponential, or quadratic equations for a variable. Students select and use appropriate tools to build representations for various function types with and without technology. Students use mathematical ideas as a tool to validate the appropriateness and usefulness of a model.

Mathematical Practice 6: Attend to precision and reasonableness

In high school, students attend to precision and reasonableness when analyzing data to compare two or more distributions, which includes selecting appropriate graphical displays and analyzing measures of center and variability. Students attend to precision and reasonableness when exploring associations between two quantitative variables, using tools like scatter plots and correlation to evaluate the reasonableness and strength of models. Students attend to precision of language and notation while constructing arguments and carefully evaluating the reasonableness of observed ideas and processes when exploring transformations of functions.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In high school, students describe the structures of linear and exponential expressions by identifying whole expressions being made up of parts, like terms and factors. Students describe and represent underlying structures to help define dilations and similar shapes, and then use these structures to solve problems. Students use models to explore and describe attributes of the structure, patterns and relationships of inverses for various function types.

Mathematical Practice 8: Make conjectures and evaluate the results

In high school, students develop and assess conjectures as they form hypotheses and assess their validity when evaluating results derived from statistical analyses to answer investigative questions. Students make conjectures about the reasonableness and strength of the model they choose to describe the association between two quantitative variables. Students develop, assess, and evaluate conjectures about properties of exponents for rational exponents.

Standards: Secondary Math III (Calculus Pathway)

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Algebra (A)

Analyze and interpret the structure and patterns of polynomial, rational and radical expressions, and rewrite them in equivalent form to simplify and solve problems. Construct and represent series, rational expressions, and higher-degree polynomials using zeros and factors. Use a variety of algebraic and technologic tools to solve rational, radical, and compound inequalities.

CS3.A.5 (Extension of S3.A.2)

Create equations and inequalities in one variable to *model a context* and use them to solve problems. Include equations arising from polynomial, exponential, rational and radical functions. (MP 3)

CS3.A.6 (Extension of S3.A.3)

For exponential models, express as a logarithm the solution to $f(t)=ab^{ct} = d$ where a , b , c , and d are numbers, $b>0$; evaluate the logarithm using *technological tools*. *Justify* and use the properties of logarithms to generate equivalent expressions, connecting them to the properties of exponents. (MP 2, 3)

CS3.A.7

Understand the inverse relationship between exponents and logarithms. Use this *relationship* to solve problems involving exponents and logarithms. (MP 7)

CS3.A.8

Model arithmetic and geometric series, including infinite geometric series algebraically, graphically, and numerically. (MP 4)

CS3.A.9

Build and use expressions including sigma notation to represent the sum of a finite arithmetic or geometric series. (MP 4)

CS3.A.10

Add, subtract, multiply and divide polynomial and rational functions. *Justify* whether these operations result in new polynomial or rational functions. (MP 3)

CS3.A.11

Identify zeros of polynomial functions *using algebraic tools*, including factoring or the Remainder Theorem. (MP 5)

CS3.A.12

Expand and simplify polynomial sums, products, and powers using *structures and patterns*. (MP 7)

CS3.A.13

Solve compound inequalities in one variable, including absolute value inequalities *using algebraic or technological tools*. (MP 5)

Number System (NS)

Build on understanding of real numbers and quadratic equations to include complex solutions of polynomial equations and satisfy the conditions for the Fundamental Theorem of Algebra. Use and perform operations with imaginary and complex numbers and represent them on the complex plane.

CS3.NS.1

Represent addition, subtraction, and multiplication geometrically on the complex plane. Perform algebraic operations with complex numbers on the complex plane. (MP 7)

CS3.NS.2

Using the Fundamental Theorem of Algebra, *construct arguments* that verify the solutions to polynomial equations will always be numbers within the set of complex numbers and will have the form $a + bi$ where a and b are real numbers. (MP 3)

CS3.NS.3

Find solutions for polynomials that are limited to integer coefficients *using algebraic or technological tools*. (MP 5)

Functions (F)

Analyze functional relationships and their features using different representations, contextualizing and interpreting function expressions in terms of the modeled situation. Build, refine, and compare polynomial and exponential models to solve problems. Construct and use parametric and graphic models. Build new functions from existing functions. Extend the domain of trigonometric functions using the unit circle. Model periodic phenomena with trigonometric functions. Use inverse trigonometric functions to solve equations and inequalities.

CS3.F.9 (Extension of S3.F.1)

Understand and interpret the features of polynomial, radical, rational or logarithmic functions represented graphically using interval notation and inequalities by *applying and removing context*. Focus on these key features: domain, range, intervals of increase and/or decreasing, location of absolute maximum and/or absolute minimum, intercepts, asymptotes, and end behavior. *Build graphic models* that satisfy given key features. (MP 2, 4)

CS3.F.10 (Extension of S3.F.2)

Build and use models of periodic phenomena with trigonometric functions that connect real world contexts with amplitude, frequency, and midline. *Use structures and patterns* to support understanding of a domain extended beyond 0 to 90 degrees, or 0 to $\frac{\pi}{2}$ radians. (MP 4, 7)

CS3.F.11 (Extension of S3.F.3)

Understand and interpret key features (period, midline and amplitude/asymptote) of trigonometric functions represented graphically. *Build graphic models* that satisfy the given key features. (MP 4)

CS3.F.12 (Extension of S3.F.4)

Build graphical representations that show key features of polynomial, radical, exponential, logarithmic, rational and trigonometric functions expressed symbolically. *Select and use appropriate tools* to graph, by hand for simple cases, and using technology for more complicated cases. (MP 4, 5)

CS3.F.13 (Extension of S3.F.5)

Identify the effect on the graph when replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, $f(x+k)$ by exploring specific values of k for polynomial, radical, exponential, logarithmic, rational, and trigonometric functions in and out of context. *Attend to precision* of language and notation while *constructing arguments* and carefully evaluate whether the ideas and processes observed during exploration are *reasonable*. (MP 3, 6)

CS3.F.14

Define a curve parametrically, and *create a graphical model*. (MP 4)

CS3.F.15

Build a new function from a composition of functions that *models* a relationship between two quantities. (MP 4)

CS3.F.16

Verify by composition that one function is the inverse of another function. *Build* an invertible function from a non-invertible function by restricting the domain. (MP 3, 4)

CS3.F.17

Use inverse trigonometric functions to solve equations and inequalities *with and without a context*. Determine the *reasonableness* of solutions using *context*. (MP 2, 6)

Geometry/Trigonometry (G)

Apply geometric reasoning to real world modeling situations. Apply prior understanding of trigonometric ratios to all types of triangles using the Law of Sines and Cosines. Build and use the unit circle to extend the domain of trigonometric functions.

CS3.G.4

Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles *with and without context*. (MP 2)

CS3.G.5

Use special triangles as *tools* to construct the unit circle with degrees and radians. *Describe and represent patterns* in the unit circle and use them as *tools* to evaluate the trigonometric functions at multiples of $\frac{\pi}{4}$ and $\frac{\pi}{6}$. (MP 5, 7)

CS3.G.6

Prove the addition and subtraction formulas for sine, cosine and tangent and use them *as tools* to solve problems. (MP 5)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in

future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of Secondary III (Calculus), students will be able to:

- Understand, distinguish between, and represent functions including polynomial, rational, trigonometric, logarithmic, and inverse functions. (F)
- Interpret and analyze key features of linear, quadratic, exponential, polynomial, rational, logarithmic, and trigonometric functions. (F)
- Use congruence, similarity, and right triangle ratios to work with the unit circle and trigonometric identities. (F)
- Describe, represent, and build polynomials using zeros and factors. (A)
- Solve equations (rational and radical) as well as inequalities including compound inequalities. (A)
- Perform operations with complex numbers. (NS)
- Apply trigonometric identities and inverse trigonometric functions in solving equations and inequalities. (F)

Standards: Secondary Math III (Data Science Pathway)

Introduction

In Secondary Math I through Secondary Math III, the major works of each grade focus on learning to create, interpret, manipulate, and solve algebraic equations. Students develop an understanding of functions and learn how to compare and represent functions as defined by rates of change, multiple representations, and building functions. Students learn to define functions and describe their features and transformations. Students understand, apply and prove congruence of similarity as defined in terms of geometric transformations. Students also investigate statistical questions by creating a plan to collect data for a non-biased sample from a population for primary data or ask questions about how secondary data was collected and whether it is useful. They will analyze data using graphical displays and numerical summaries of the sample data and use the evidence from that analysis to answer the statistical question of interest.

The Secondary Math III Data Science Pathway prepares students for a diverse range of college majors and careers that rely on understanding, interpreting, and communicating data. This includes fields like nursing, psychology, history, and the social sciences.

This course focuses on descriptive and statistical methods—the essential tools used to analyze, model, and draw insights from data. Completion of this pathway provides students with the foundational skills necessary to successfully enroll in introductory university statistics courses or AP Statistics.

Within each domain the standard numbering begins where the Secondary Math III *Math for All Students* standards conclude. Standards with the prefix *S3* represent standards from the *Math for All Students* content. Standards with the prefix *DS3* are specific to the Data Science Pathway course.

In the Secondary Math III Data Science Pathway instructional time should focus on five major works: (1) data acquisition and preparation; (2) exploratory data analysis; (3) computational thinking; (4) data driven decision making; and (5) model

evaluation and validation.

These five pillars are the foundations of the mathematics students explore in the Data Science Pathway.

- Data Acquisition and Preparation:
 - Create usable datasets by collecting, filtering, cleaning, and scaling data, while prioritizing data privacy.
- Exploratory Data Analysis:
 - Describe patterns and variations within data by analyzing visualizations and identifying trends and features. Provide contextual interpretations of visual and numeric findings. Explore relationships between variables and formulate questions to guide further analysis.
- Computational Thinking:
 - Frame problems for computational solutions. Apply algorithmic thinking to decompose complex problems into manageable parts, enabling reuse of components across applications.
- Data-Driven Decision Making:
 - Build and apply models relevant to specific contexts for real-world applications. Critically evaluate the ethical implications of generalizations. Justify conclusions based on rigorous data analysis.
- Model Evaluation and Validation:
 - Assess the validity and potential bias of models. Consider the role of randomness in inference and computation. Evaluate the representativeness of data in relation to model validity. Distinguish between statistical significance and practical importance. Conduct hypothesis testing to validate findings.

Mathematical Practices

Mathematical Practice 1: Ask questions to explore mathematical ideas

In high school, students formulate and ask questions to highlight the difference between various function types. Students ask targeted questions about univariate data displays to explore mathematical ideas. Students ask questions about the underlying structure of geometric objects revealed by geometric constructions.

Mathematical Practice 2: Add or remove context to make sense of mathematics

In high school, students contextualize and decontextualize functions to interpret their properties, connecting symbolic representations to meaningful situations. Students interpret the features of a function represented graphically, numerically and symbolically by applying and removing a context. Students interpret the parts of an expression in context to make sense of the underlying structure of polynomial and rational expressions.

Mathematical Practice 3: Construct, justify, and communicate clear and reasonable arguments

In high school, students construct, justify, and communicate clear and reasonable arguments about reflection and rotational symmetries of parallelograms and regular polygons. Students construct, justify and communicate proof of the Pythagorean Theorem using triangle similarity. Students construct arguments to distinguish between situations that can be modeled by various function types. They construct arguments to justify claims such as why exponential growth eventually surpasses linear, quadratic or the growth in any other polynomial function.

Mathematical Practice 4: Build and use models

In high school, students build and use models in two primary ways. One of these is to use models to connect mathematical concepts to one another. Another way that students use models in high school is to model real-world phenomena.

Students create and use verbal, contextual, visual, symbolic, and physical models to connect mathematical ideas and enhance their understanding. In high school students use these models to describe and represent patterns and relationships to compare function types and connect mathematical ideas between them.

To model real-world phenomena, students engage in mathematical and statistical modeling to represent, analyze, and predict real-world situations. In high school students use geometric shapes, their measures, and their properties to model real world objects and apply geometric methods to solve design problems.

Mathematical Practice 5: Select and use tools appropriately and strategically

In high school, students learn to select and leverage multiple types of tools while engaging in and applying mathematics. Opportunities to leverage tools include, but are not limited to, selecting appropriate algebraic tools to solve linear, exponential, or quadratic equations for a variable. Students select and use appropriate tools to build representations for various function types with and without technology. Students use mathematical ideas as a tool to validate the appropriateness and usefulness of a model.

Mathematical Practice 6: Attend to precision and reasonableness

In high school, students attend to precision and reasonableness when analyzing data to compare two or more distributions, which includes selecting appropriate graphical displays and analyzing measures of center and variability. Students attend to precision and reasonableness when exploring associations between two quantitative variables, using tools like scatter plots and correlation to evaluate the reasonableness and strength of models. Students attend to precision of language and notation while constructing arguments and carefully evaluating the reasonableness of observed ideas and processes when exploring transformations of functions.

Mathematical Practice 7: Describe and represent structures, patterns, and relationships

In high school, students describe the structures of linear and exponential expressions by identifying whole expressions being made up of parts, like terms and factors. Students describe and represent underlying structures to help define dilations and similar shapes, and then use these structures to solve problems. Students use models to explore and describe attributes of the structure, patterns

and relationships of inverses for various function types.

Mathematical Practice 8: Make conjectures and evaluate the results

In high school, students develop and assess conjectures as they form hypotheses and assess their validity when evaluating results derived from statistical analyses to answer investigative questions. Students make conjectures about the reasonableness and strength of the model they choose to describe the association between two quantitative variables. Students develop, assess, and evaluate conjectures about properties of exponents for rational exponents.

Standards: Secondary Math III (Data Science)

More details about the standards, including relevant vocabulary, representations that support student learning, pre-requisite skills, and how the skills are integrated, can be found in the [Utah Mathematics Core Guides](#).

(Utah Mathematics Core Guides will be updated after these standards are approved by the Utah State Board of Education)

Data Science (D)

Understand full data science cycle, focusing on processing, visualizing, and describing both categorical and quantitative data, including measures of center and variability. Build and validate statistical models (e.g., linear regression) and apply concepts like the Central Limit Theorem for statistical inference and hypothesis testing. Critically evaluate conclusions, emphasizing the role of random assignment, bias, and ethical, reproducible practices.

DS3.D.9

Represent categorical and quantitative information in organized tables suitable for analysis. *Attend to precision* in data processing by filtering through logical statements, and transforming data with a detailed set of ordered tasks that are repeatable by others or a computer. (MP 6, 7)

DS3.D.10

Describe univariate displays of large sets of data using technology. *Ask targeted questions* about the displays, including shape (skewed, symmetric), center,

variability, and unusual outcomes. (MP 1)

DS3.D.11

Describe and represent relationships between two quantitative variables. Create visual representations with or without technology, addressing strength, form, direction and unusual observations in the data. (MP 7)

DS3.D.12

Build and use models to describe relationships between two continuous variables using linear regression. Explain which variable(s) should be used for prediction. *Construct reasonable arguments* for appropriate and inappropriate use of the model for practical decision making. (MP 3, 4)

DS3.D.13

Describe the relationship between the distribution of a population, the distribution of a sample, and a sampling distribution (e.g., the distribution of sample means). *Describe* sampling distributions through summary statistics, including the mean and the standard deviation. (MP 1)

DS3.D.14

Use the central limit theorem to *represent* the distribution of sample means of large data sets as a normal distribution. *Assess conjectures* about the population means based on the sample averages through probability calculations from the normal distribution. (MP 7, 8)

DS3.D.15

Use statistical tools to validate the appropriateness and usefulness of a model, including visual and numeric assessments of model fit. Use hypothesis testing and simulation to *develop and assess conjectures* about the model. (MP 5, 8)

DS3.D.16

Evaluate results reached from data analysis. Identify ways to refine investigative questions, data collection, visualization, or analysis. *Justify and communicate clear and reasonable* conclusions. (MP 3)

DS3.D.17

Determine the appropriate scope of generalization based on the method of sampling. *Contextualize* the implications through data storytelling. (MP 2)

DS3.D.18

Understand the role of random assignment in experiments and the implications for cause-and-effect interpretations. *Justify conclusions.* (MP 3)

DS3.D.19

Construct reasonable arguments regarding the issues of data bias and confounding variables in observational studies and their implications for interpretation. (MP 3)

DS3.D.20

Use precision in practices for handling large sets of data that enhance reproducibility and ensure ethical use, including descriptions of alterations, and understand when data may contain sensitive information. (MP 6)

Essential Competencies

Essential competencies have been identified at each grade level to represent foundational understandings that students need to succeed as they continue in future grade levels. This list is not exhaustive; students will engage with all grade-level standards. Educators may prioritize instructional time and, as needed, provide interventions based on the standards that support these competencies to ensure students are proficient. Through engagement with the skills and knowledge embedded within the *Utah Core Mathematics Standards*, by the end of Secondary III (Data Science), students will be able to:

- Summarize collected data to answer investigative questions using tables, graphs, and numerical summary statistics. Transform data. (D)
- *Describe and represent structures and patterns of* data on two categorical variables, two quantitative variables, and for univariate data. (D)
- *Build and use models* to describe relationships between two continuous variables, including linear regression. Explain which variable(s) should be used for prediction. (D)
- *Develop and use models* from sample data to estimate population means or proportions. (D)
- *Describe* sampling distributions through summary statistics, including the mean and the standard deviation. Use the central limit theorem to *represent* the distribution of sample averages as a normal distribution. (D)

- Use hypothesis testing and simulation to *develop and assess conjectures* about models. Evaluate appropriateness of models. (D)
- Evaluate results from data analysis. *Justify and communicate* conclusions, including appropriate scope of generalization, and *contextualize* the implications. (D)

1.16.25 Draft

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: General Financial Literacy Standards Update

Agenda item type:

Action Item

Recommended Action:

That the Committee approve the release of the General Financial Literacy standards Draft 1, for a 30-day public comment period.

Purpose of Memo:**Background:**

In accordance with [53E-3-505](#) and [R277-704](#), the state board is required to convene the General Financial Literacy (GFL) Task Force at least once every three years to examine and recommend adjustments to the strands and standards of the GFL course. The GFL strands and standards were most recently updated in 2023.

In the March 2026 Utah State Board of Education meeting, the board was notified that staff were beginning the USBE Single Course Standards Revision Process (attached) for the General Financial Literacy course standards. A 30-day window was available for board members to submit suggestions to the writing committee.

The writing committee was convened to consider appropriate laws, changes to coursework, board member suggestions, field recommendations, and other relevant information necessary to update these standards.

Revised standards (draft 1) are now available for the Standards and Assessment Committee to review and release for a 30-day public comment period. Board members may submit recommendations as part of public comment.

At the end of the 30-day comment period, the writing committee and staff will review comments received and make final draft modifications.

We anticipate having the final draft ready for the Standards and Assessment Committee to review in the November meeting.

Please direct questions to April Painter at april.painter@schools.utah.gov

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Attachments:

1. C53E-3-S505
2. R277704EffectiveApril2025
3. Single Course Process Revised March 23
4. 2026 GFL Revision Timeline
5. General Financial Literacy SS Draft 1-August 2026

Effective 5/1/2024

53E-3-505 Financial and economic literacy education.

(1) As used in this section:

- (a) "Financial and economic activities" include activities related to the topics listed in Subsection (1)(b).
- (b) "Financial and economic literacy concepts" include concepts related to the following topics:
 - (i) basic budgeting;
 - (ii) saving and financial investments;
 - (iii) banking and financial services, including balancing a checkbook or a bank account and online banking services;
 - (iv) career management, including earning an income;
 - (v) rights and responsibilities of renting or buying a home;
 - (vi) retirement planning;
 - (vii) loans and borrowing money, including interest, credit card debt, predatory lending, and payday loans;
 - (viii) insurance;
 - (ix) federal, state, and local taxes;
 - (x) charitable giving;
 - (xi) identity fraud and theft;
 - (xii) negative financial consequences of gambling;
 - (xiii) bankruptcy;
 - (xiv) economic systems, including a description of:
 - (A) a command system such as socialism or communism, a market system such as capitalism, and a mixed system; and
 - (B) historic and current examples of the effects of each economic system on economic growth;
 - (xv) supply and demand;
 - (xvi) monetary and fiscal policy;
 - (xvii) effective business plan creation, including using economic analysis in creating a plan;
 - (xviii) scarcity and choices;
 - (xix) opportunity cost and tradeoffs;
 - (xx) productivity;
 - (xxi) entrepreneurship; and
 - (xxii) economic reasoning.
- (c) "General financial literacy course" means the course of instruction administered by the state board under Subsection (3).

(2) The state board shall:

- (a) more fully integrate existing and new financial and economic literacy education into instruction in kindergarten through grade 12 by:
 - (i) coordinating financial and economic literacy instruction with existing instruction in other areas of the core standards for Utah public schools, such as mathematics and social studies;
 - (ii) using curriculum mapping;
 - (iii) creating training materials and staff development programs that:
 - (A) highlight areas of potential coordination between financial and economic literacy education and other core standards for Utah public schools concepts; and
 - (B) demonstrate specific examples of financial and economic literacy concepts as a way of teaching other core standards for Utah public schools concepts; and

- (iv) using appropriate financial and economic literacy assessments to improve financial and economic literacy education and, if necessary, developing assessments;
- (b) work with interested public, private, and nonprofit entities to:
 - (i) identify, and make available to teachers, online resources for financial and economic literacy education, including modules with interactive activities and turnkey instructor resources;
 - (ii) coordinate school use of existing financial and economic literacy education resources;
 - (iii) develop simple, clear, and consistent messaging to reinforce and link existing financial literacy resources;
 - (iv) coordinate the efforts of school, work, private, nonprofit, and other financial education providers in implementing methods of appropriately communicating to teachers, students, and parents key financial and economic literacy messages; and
 - (v) encourage parents and students to establish higher education savings, including a Utah Educational Savings Plan account;
- (c) in accordance with Title 63G, Chapter 3, Utah Administrative Rulemaking Act, make rules to develop guidelines and methods for school districts and charter schools to more fully integrate financial and economic literacy education into other core standards for Utah public schools courses; and
- (d) in cooperation with school districts, charter schools, and interested private and nonprofit entities, provide opportunities for professional development in financial and economic literacy concepts to teachers, including:
 - (i) a statewide learning community for financial and economic literacy;
 - (ii) summer workshops; and
 - (iii) online videos of experts in the field of financial and economic literacy education.
- (3) The state board shall:
 - (a) administer a general financial literacy course in the same manner that the state board administers other core standards for Utah public school courses for grades 9 through 12;
 - (b) adopt standards and objectives for the general financial literacy course that address:
 - (i) financial and economic literacy concepts;
 - (ii) the costs of going to college, student loans, scholarships, and the Free Application for Federal Student Aid;
 - (iii) financial benefits of pursuing concurrent enrollment as defined in Section 53E-10-301; and
 - (iv) technology that relates to banking, savings, and financial products; and
 - (c)
 - (i) contract with a provider, through a request for proposals process, to develop an online, end-of-course assessment for the general financial literacy course;
 - (ii) require a school district or charter school to administer an online, end-of-course assessment to a student who takes the general financial literacy course; and
 - (iii) develop a plan, through the state superintendent, to analyze the results of an online, end-of-course assessment in general financial literacy that includes:
 - (A) an analysis of assessment results by standard; and
 - (B) average scores statewide and by school district and school.
- (4)
 - (a) The state board shall establish a task force to study and make recommendations to the state board on how to improve financial and economic literacy education in the public school system.
 - (b) The task force membership shall include representatives of:
 - (i) the state board;
 - (ii) school districts and charter schools;

- (iii) the Utah System of Higher Education; and
- (iv) private or public entities that teach financial education and share a commitment to empower individuals and families to achieve economic stability, opportunity, and upward mobility.
- (c) The state board shall convene the task force at least once every three years to review and recommend adjustments to the standards and objectives of the general financial literacy course.

Amended by Chapter 378, 2024 General Session

R277. Education, Administration.

R277-704. Financial and Economic Literacy: Integration into Core Curriculum.

R277-704-1. Authority, Purpose, and Oversight Category.

(1) This rule is authorized by:

(a) Utah Constitution [Article X, Section 3](#) which vests general control and supervision over public education in the Board;

(b) Subsection [53E-3-401](#)(4), which allows the Board to make rules to execute the Board's duties and responsibilities under the Utah Constitution and state;

(c) Section [53E-3-505](#), which directs the Board to work with financial and economic experts and private and non-profit entities to develop and integrate financial and economic literacy and skills into the public school curriculum at all appropriate levels.

(2) The purpose of this rule is:

(a) to integrate financial and economic literacy concepts effectively into the core curriculum in various programs and at various grade levels;

(b) to provide for educator professional development using business, education, and community expertise;

(c) to provide curriculum resources and assessments for financial and economic literacy;

(d) to provide simple and consistent messaging to students that becomes part of the core curriculum that reinforces the importance of financial and economic literacy for students and parents; and

(e) to help students and parents to locate and use school and community resources to improve financial and economic literacy among students and families.

(3) This rule is categorized as Category 4 as described in Rule R277-111.

R277-704-2. Definitions.

(1) "Content Specialist" means a licensed educator who provides instruction or specialized support for students and teachers in a school setting.

(2) "End of course assessment" means an online end of course assessment for students who take the general financial literacy course.

(3) "Endorsement" means the licensing document required by the board for teachers who teach general financial literacy.

(4) "General Financial Literacy Course" means the course of instruction administered by the Superintendent as a course required for graduation, which adopts the standards and objectives addressed in accordance with Section [53E-3-505](#).

(5) "LEA" for purposes of this rule, includes the Utah Schools for the Deaf and the Blind.

(6) "Professional development" means locally or Board-approved education-related training or activities that enhance an educator's background.

(7) "Success Sequence" means a three-pronged framework for youth and young adults that encompasses the values of:

- (a) completing at least a high school education;
- (b) obtaining full-time work; and
- (c) marrying before having children.

R277-704-3. General Financial Literacy End of Course Assessment.

(1) The Superintendent shall provide an LEA with an end of course assessment for general financial literacy which shall be:

- (a) administered to every student who takes the general financial literacy course;
 - (b) aligned with general financial literacy revised core standards and objectives;
- and
- (c) measured and analyzed at the school, district, and state-wide levels.

R277-704-4. General Financial Literacy Teacher Endorsement.

(1) A Board licensed educator who teaches general financial literacy shall have licensing, endorsements, and other credentials equal to other content specialists as described in Section R277-309-4.

(2) An educator's course work may be part of or in addition to course work and programs of study required for licensure by the Board consistent with Rule R277-303.

R277-704-5. Financial and Economic Literacy Professional Development Opportunities.

- (1) The Superintendent shall work with public, private, and nonprofit entities to provide professional development for all areas of financial and economic literacy.
- (2) Professional development activities shall:
 - (a) provide information about financial and economic literacy including personal finance and economic responsibility;
 - (b) make online resources available to teachers for financial and economic literacy education, including modules with interactive activities and turnkey instructor resources; and
 - (c) include strategies for promoting financial and economic literacy.

R277-704-6. Financial and Economic Literacy Taskforce.

- (1) The financial and economic literacy taskforce shall have the membership and general responsibilities outlined in Subsection [53E-3-505](#)(4).
- (2) In addition to the responsibilities outlined in Subsection [53E-3-505](#)(4), the financial and economic literacy taskforce shall:
 - (a) analyze data provided by the Superintendent that includes:
 - (i) aggregated-school level proficiency results from the end of course assessment;
 - (ii) general enrollment data;
 - (iii) other relevant data to inform strategies for strengthening financial literacy proficiency; and
 - (b) serve as the writing committee for the financial literacy course standards.
 - (c) include financial and economic literacy concepts required by Subsection [53E-3-505](#)(1)(b) and the Success Sequence in course standards development.
- (3) Taskforce recommendations for the financial literacy course standards shall follow the board approved process for non-core standards.

KEY: financial, economics, literacy

Date of Last Change: April 8, 2025

Notice of Continuation: August 23, 2023

Authorizing, and Implemented or Interpreted Law: [Art X Sec 3](#); [53G-3-505](#); [53E-3-401](#)(4)

USB
Single Course Standards Revision Process

1. Board members are notified by consent calendar information item during the full board meeting and by email of upcoming course revisions. They are allowed a 30-day window to submit suggestions to the writing committee.
2. The writing committee is convened to consider appropriate laws, changes to coursework, board member suggestions, field recommendations, and other relevant information necessary to update a course of study.
3. Revised standards are brought before the Standards and Assessment Committee meeting to be released for a 30-day public comment period. Board members may submit recommendations as part of public comment.
4. The writing committee and staff review public and board comments and make final draft modifications.
5. The Standards and Assessment Committee reviews the draft received from the writing committee and makes any additional amendments or recommendations it deems necessary. The amended draft from the Standards and Assessment committee is submitted to the full board for final approval or returned to the writing committee for further consideration.
6. The full board makes any final amendments.

Revised March 2023

2026 GFL Revision Timeline - USBE

Phase	Estimated Timeline	Action Step per USBE Process
1. Initiation	March 12, 2026	Board members are notified via consent calendar and email. A 30-day window opens for Board members to submit initial suggestions.
2. Drafting	April – July 2026	The Committee reviews laws, Board suggestions, and field recommendations to update the GFL strands.
3. Committee Review	Aug 2026	Revised standards are presented to the Standards and Assessment Committee.
4. Public Comment	Aug – Sept 2026	A 30-day public comment period begins. Board members may also submit recommendations during this time.
5. Refinement	Sept-Oct 2026	The writing committee and USBE staff review all public and Board comments to refine the standards.
6. Committee Finalization	Nov 2026-Jan 2026	Standards and Assessment Committee reviews the final draft and makes any additional amendments.
7. Board Approval	Feb – Mar 2027	The full Board reviews the draft, makes any final amendments, and votes for official approval.
8. Implementation	June 2027	Updated strands and standards are available for summer conference professional development and implemented for the 2027-2028 SY.

STRANDS AND STANDARDS

GENERAL FINANCIAL LITERACY

Course Description

The General Financial Literacy (GFL) course covers essential standards for developing basic financial and economic reasoning. Resource management and decision-making skills will be emphasized as students explore strategies for managing and protecting the money they earn, keep, and spend. The goal of GFL is to help students become financially responsible and conscientious members of society as they contribute to their own financial well-being. Students should feel empowered to achieve financial success. This course is for juniors and seniors, is required for graduation, and can be taken for concurrent enrollment credit.

Intended Grade Level	11-12
Units of Credit	0.5
Core Code	01.00.00.00.100
Concurrent Enrollment Core Code	01.00.00.13.100
Prerequisite	N/A
Skill Certification Test Number	N/A
Test Weight	N/A
License Type	Secondary Education 6-12
Required Endorsement(s)	
Endorsement 1	General Financial Literacy

STRAND 1

Students will understand the factors that influence personal financial priorities and learn how to make rational decisions.

Standard 1

Behavioral finance is the study of how emotions, habits, biases, and social influences affect the way people make financial decisions.

- Discuss the principles of financial management that promote individual financial stability, such as minimizing debt.
- Evaluate the role of emotions, attitudes, and habits in making financial decisions.
- Understand how family, culture, and values influence financial decisions and goals.
- Discuss examples as well as the pros and cons of charitable giving, such as:
 - assistance to those in need
 - tax benefits
 - religious worship and
 - excess production.
- Give examples of how marketing strategies, social media, and social pressure can influence purchasing

decisions.

- Emphasize the importance of
 - **comparison shopping**
 - buying strategies
 - and negotiation in purchasing.

Standard 2

Define a rational decision-making process.

- Recognize that individuals are responsible for their own financial decisions and for subsequent positive and negative consequences.
- Describe **cost-benefit analysis** as a rational decision-making process.
- Understand the differences and consequences of:
 - Saving
 - Investing
 - Speculation
 - Cryptocurrency
 - and gambling.
- Recognize the addictive nature of gambling and how it can affect relationships.
- Compare instant satisfaction with **delayed gratification**, such as impulse buying versus planned expenditures.
- Understand how different biases affect your decision-making process.
 - **Present Bias**
 - **Confirmation Bias**
 - **Overconfidence Bias**
 - **Status Quo Bias**

Standard 3

Students will understand the "Success Sequence" and the importance of building lifelong financial relationships.

- The "Success Sequence" is the three-pronged framework for youth and young adults that encompasses the values of:
 - i. completing at least a high school education;
 - ii. obtaining full-time work;
 - iii. and marrying before having children.
- Students will understand how intentional decision-making, healthy relationships, family formation, goal setting, and planning can influence personal financial stability, economic self-sufficiency, and long-term financial outcomes.

STRAND 2

Students will understand basic economic concepts and develop economic thinking critically to make personal financial choices.

Standard 1

Understand how basic economic principles affect personal financial choices.

- Describe the role different participants play in the economy, such as
 - households
 - businesses
 - government.

- Explain causes of **inflation** and the impact inflation has on economic and financial choices.
- Compare and contrast:
 - **expansion**
 - **recession**
 - **depression.**
- Discuss the role of the federal government in **fiscal policy** and the role of the **Federal Reserve** in **monetary policy**.
- Analyze how the larger economy develops from individual participants' rational economic choices.
- Explain the **law of supply and demand** and discuss how factors of production, resources, and **scarcity** affect rational economic choices.
- Apply **economic reasoning skills** to make informed personal financial decisions, including **opportunity cost** (tradeoffs) and their role in decision-making.

Standard 2

Analyze different **economic systems** and how they impact personal financial choice, wealth generation, and economic freedom.

- Understand the different ideologies behind economic systems, including:
 - Capitalism
 - Laissez-Faire
 - Social Market
 - Neo-Capitalism
 - Socialism
 - Fascism
 - Communism.
- Discuss historic and current examples of economic systems and their effects on economic growth.
 - Traditional
 - **Market**
 - **Command**
 - **Mixed**
- Discuss how free market systems and property rights correlate with economic prosperity.

STRAND 3

Students will understand sources of income and the relationship between career preparation and **lifetime earning power**.

Standard 1

Identify sources of income and individual tax responsibilities.

- Identify sources of income, such as:
 - Salary
 - Wages
 - Commissions
 - and tips.
- Compare the **risks and rewards** of **entrepreneurship**/self-employment.
- Understand the effects of **deductions** on wages and income:
 - **FICA (Social Security and Medicare)**
 - **state taxes**
 - local taxes

- **federal taxes**
- and **voluntary deductions**.
- Understand the similarities and differences between wages and income.
- Contrast the differences between
 - **gross income**
 - **net income**
 - and taxable income.
- Understand the effects of state (**Form TC-40**) and federal (**Form 1040**) taxes and the requirement to file, including:
 - income
 - filing status
 - dependency tax law
 - and adjustments.
- Understand basic employment forms and processes, including:
 - **W-2**
 - **W-4**
 - and **I-9**.

Standard 2

Understand and begin preparation for post-secondary training and a career.

- Recognize and explore the correlation between education, training, and potential lifetime income.
- Understand how types of education and training, and their costs, can vary between
 - Public
 - private
 - nonprofit and for-profit colleges
 - universities
 - trade schools
 - and professional training programs.
- Calculate the costs of post-secondary training options and analyze the **return on investment (ROI)** based on career choices.
- Compare income to the **cost-of-living** in various geographical areas and the impact it has on **purchasing power**.
- Identify sources of funding to assist in post-high school education opportunities and the cost of repayment, including:
 - **scholarships**
 - **grants**
 - **529 plans**
 - loans
 - savings
 - tuition reimbursement
 - **work study**
 - and gifts.
- Understand the financial benefits of pursuing higher education opportunities while in high school.
- Understand the process for and benefits of **FAFSA** completion. [Seek guidance from school counselors/ college awareness counselors.]

Standard 3

Identify specific durable skills necessary to enhance **employability** and earning power.

- Identify components to be included on a **resume** and/or electronic professional profile, such as:
 - appropriate contact information
 - experience [educational, work, and volunteer]
 - skills
 - certificates obtained
 - accomplishments
 - **interests**
 - and references
- Identify sources and strategies for finding employment, as well as the benefits of networking.
- Identify **Durable Skills** that increase employability, retention, and **earning power**.
 - adaptability
 - collaboration
 - communication
 - innovation
 - leadership
 - professionalism

STRAND 4

Students will understand the principles of personal **money management**, including budgeting and managing accounts, as well as the role and impact of credit on personal finance.

Standard 1

Identify and explain the process of budgeting based on projected income and expenses.

- Define the elements of a financial plan and describe the benefits of financial planning. Include:
 - Identify short- and long-term financial goals and the impact they have on one's financial plan.
 - Develop a **budget** that includes the following categories:
 - spending/debt
 - savings
 - investing
 - charitable contributions.
- Define budget categories:
 - **fixed**
 - **variable**
 - and periodic.
- Emphasize the importance of a goals-based budget, including priorities, such as:
 - **Pay Yourself First (PYF)**
 - **emergency/opportunity fund**
 - insurance
 - and charitable or other voluntary contributions.

Standard 2

Determine the validity and safety of financial technology, financial institutions, and individuals providing financial services.

- Compare tools for tracking a budget, income, expenditures, savings, and investments.
 - Consider the pros and cons of paper and digital tracking.
 - Assess the safety and privacy features of digital tools, including:
 - multi-factor authentication

- data tracking
- location tracking
- and the collection of personal habits.
- This is a statement from the USBE Board on Artificial Intelligence.
Students will develop the knowledge and skills to use Artificial Intelligence responsibly and effectively in **the General Financial Literacy course**.
 - **Responsible use of AI**, which includes recognizing when to use AI, using appropriate prompts to produce desired output, determining the accuracy of information, how AI has contributed to a product, and communicating that clearly.
 - **The importance of transparency and documentation**, both in their own use of AI tools and in verifying the authenticity of others' work.
 - **How AI influences all work**, including the evolving boundaries and tightening restrictions around intellectual property and copyright.

Standard 3

Describe and discuss the impact of credit and debt on personal money management.

- Discuss the purpose and role of credit. Explain the value of building and maintaining a healthy credit rating, including elements of **creditworthiness**:
 - **character**
 - **capacity**
 - **capital**
 - **collateral**
 - and **conditions**.
- Explore and discuss the pros and cons of basic types of **credit**, including:
 - **unsecured vs. secured credit**
 - credit cards
 - **installment loans**
 - **revolving credit**
 - **student loans**
 - **mortgage**
 - and **payday/predatory lenders**.Evaluate the costs and risks of each type.
- Define and understand the terms associated with credit, including:
 - **APR**
 - **grace period**
 - **late fees**
 - **finance charges**
 - **default rates**
 - interest
 - and **closing costs**.
- Explain the purpose of **co-signers** and collateral when applying for a loan.
- Understand and demonstrate **simple interest** calculations.
- Calculate how long it takes to repay debt by making minimum payments on installment loans or revolving accounts.
- Describe the personal and societal effects of **bankruptcy** and identify circumstances that lead to bankruptcy, such as:
 - uninsured medical costs

- family break-up
- divorce
- or loss of job.

Standard 4

Explain and understand **credit reports** and the significance of **credit scores**.

- Identify the three major **credit bureaus**.
- Understand the legal right to a free, weekly credit report ([AnnualCreditReport.com](https://www.annualcreditreport.com)).
- Evaluate and identify components of a credit report, including: derogatory remarks and the warning signs of **credit abuse**, such as:
 - late fees
 - missed payments
 - collection notices
 - and bounced checks or payments.
- Evaluate the impact a credit score has on **personal finance**.

Standard 5

Understand the importance and complications of the three big loan types: housing, cars, and credit cards.

- Identify the process, rights, and responsibilities related to **renting, leasing**, and purchasing a home.
- Understand the primary homeownership qualification factors, such as:
 - debt-to-income and loan-to-value ratios, and
 - the roles of the professionals involved in the home-buying process.
- Understand the similarities and differences between **principal** and **interest** on an amortization schedule.
- Compare the pros and cons of buying or leasing a new or used vehicle, and identify the costs associated with each option.

Standard 6

Define the rights and responsibilities of buyers and sellers under consumer protection laws.

- Understand financial contracts tied to consumer purchases, such as:
 - cell phone,
 - subscription fees, and
 - membership fees.
- Discuss the negative impacts of predatory lending practices and explore:
 - title loans
 - payday loans
 - and pawn loans.
- Identify ways to avoid **identity theft** and **fraud**, including:
 - securing sensitive financial data,
 - using care when participating in online commerce,
 - avoiding **phishing** and **pharming**, and
 - properly disposing of sensitive documents.
- Understand the challenges and responsibilities of those who are victims of fraud or identity theft.
- Discuss common financial scams and **schemes** and ways to avoid them.
- Identify the pros and cons of online commerce, including how to conduct transactions safely, such as using credit cards versus debit cards for online purchases.
- Understand the role of the government in protecting the consumer and explain the features of consumer protection laws.

Identify federal and state entities that protect consumers from fraud and financial abuse, including appropriate resources or agencies to verify valid licensing before investing, borrowing, or banking.

STRAND 5

Students will evaluate saving methods and investment strategies.

Standard 1

Describe and discuss financial institutions and demonstrate how to manage personal financial accounts.

- Explain the role of the
 - **Federal Deposit Insurance Corporation (FDIC)**
 - **Securities Investor Protection Corporation (SIPC)**
 - **and the National Credit Union Association (NCUA).**
- Compare the roles of financial institutions and their services, such as **banks** and **credit unions**, and the difference between being banked and **unbanked**.
- Demonstrate how to regularly monitor and manage **checking/debit** and **savings** accounts.
- Describe available consumer banking technologies, such as
 - online deposits
 - **bill pay**
 - and **peer-to-peer transfers**.
- Explain the potential consequences of checking account mismanagement, such as **non-sufficient funds (NSF)** handling and overdraft processing.

Standard 2

Discuss various savings strategies.

- Explain how **paying yourself first (PYF)** early and often influences positive progress toward long-term financial goals.
- Identify and understand basic saving options, such as:
 - savings accounts
 - **Certificates of Deposit**
 - verified online savings
 - and money market accounts.
- Discuss how over-savings can be eroded by inflation.
- Understand that savings are designed to preserve principal.

Standard 3

Discuss the risks and returns of investing.

- Identify and understand investment options, including:
 - **retirement planning**
 - long and short-term investments
 - and **dividend reinvestment plans**.
- Identify types of long-term retirement accounts, such as:
 - **Traditional IRA**
 - **Roth IRA**
 - **401(k)**
 - and **Roth 401(k)**.
- Compare and contrast the basic types of investment products including:
 - **stocks**
 - **mutual funds**

- **index funds**
- digital assets such as **cryptocurrency**
- **real estate**
- **commodities**
- **collectibles**
- and **bonds**
- Discuss the reasons to invest, the fees associated with investing, and strategies to reduce fees.
- Discuss the relationship between risk and return.
- Demonstrate the **time value of money** using a **compound interest** calculator.

Standard 4

Understand the role of **risk management** in asset protection.

- Discuss risk management strategies, including:
 - **acceptance**
 - **transfer**
 - and **reduction**
- Discuss the purposes of insurance/risk management.
- Define common insurance products and their purposes, such as
 - **automobile**
 - **health**
 - **homeowner/renter**
 - **whole/term life**
 - and **disability**
- Define terms of a basic insurance policy, such as:
 - **contract**
 - **limits of coverage**
 - **premium**
 - **deductible**
 - **grace period**
 - and **lifetime limit**
- Discuss insurance needs at different stages of life.
- Understand the identification and designation of beneficiaries.

Vocabulary

401(k): A qualified plan established by employers to which eligible employees may make salary deferral (salary reduction) contributions on a post-tax and/or pretax basis. Employers offering a 401(k) plan may make matching or non-elective contributions to the plan on behalf of eligible employees and may also add a profit-sharing feature to the plan. Earnings accrue on a tax-deferred basis.

APR: Annual Percentage Rate: The interest rate that shows what a borrower is actually paying, including interest and loan costs on an annual basis.

Automobile Insurance: Car insurance is designed to protect you against financial losses if you're involved in an accident or the vehicle is damaged in some way.

Bankruptcy: A legal process in which a court takes over the finances of a person who can no longer make the minimum payments due on the credit they have taken.

Banks: A financial institution licensed as a receiver of deposits. There are two types of banks: commercial/retail banks and investment banks. In most countries, banks are regulated by the national government or central bank.

Beneficiaries: A beneficiary is a person (or entity) who is designated to receive the benefits of property owned by someone else.

Bill Pay: Online bill payment is a secure electronic service that lets customers pay bills without writing checks or mailing them. Online bill payment is usually tied to a checking account, from which funds are electronically withdrawn to pay one-time or recurring bills.

Bonds: A bond is a fixed-income instrument that represents a loan made by an investor to a borrower (typically a corporation or government).

Bounced Check: When the writer of a check has insufficient funds in their checking account to cover the check written.

Budget: A financial plan of income and expenses over a defined period of time.

Budgeting: The process of forecasting future expenses and income

Certificate of Deposit: A savings certificate entitling the bearer to receive interest. A CD bears a maturity date, a specified fixed interest rate, and can be issued in any denomination. CDs are generally issued by commercial banks and are insured by the FDIC. The term of a CD generally ranges from one month to five years.

Checking Account: A checking account is a deposit account held at a financial institution that allows both deposits and withdrawals.

Closing Costs: Fees associated with taking a loan in excess of the principal amount, separate from the interest charged, due at the time of closing, and typically assessed on a mortgage loan.

Collectibles as an investment: Collectible investments are physical objects — tangible assets that have the potential to appreciate in value and diversify your investment portfolio.

Command (Economic System): An Economic system whereby the factors of production are generally controlled through a central government. The government determines what to produce, how to produce it, and for whom it will be produced.

Commodities: Commodities are basic goods and materials that are widely used and are not meaningfully differentiated from one another.

Comparison Shopping: The process of comparing various factors for a product or service before making a purchasing decision

Confirmation Bias: The tendency to search for, interpret, favor, and recall information in a way that confirms or supports one's prior beliefs or values.

Overconfidence Bias: A cognitive bias where an individual overestimates their own knowledge, abilities, or the accuracy of their predictions.

Co-sign: When a person, other than the principal borrower, signs on a loan as a means to help the principal borrower get the loan, but who also takes on equal liability for it

Cost-benefit analysis: The process of measuring the benefits of a decision or action against the costs associated with it.

Cost-of-Living: Includes housing costs, transportation expenses, food, utilities (not education)

Credit: Money that a lender makes available to a borrower with the understanding that the principal will be repaid along with interest in return for the use of the lender's money

Credit Abuse: Risky personal financial behavior whereby a borrower takes on more debt than they are able to, or plan to repay.

Credit Bureaus: Organizations that collect and charge for credit information about borrowers

Credit Report: Summary of an individual's existing and past credit lines.

Credit Score: A number established by a data analytics company to predict the "character" element of creditworthiness. Most commonly expressed as a FICO number, which ranges between 300 and 850

Credit Unions: Member-owned financial cooperative. These institutions are created and operated by their members, and profits are shared amongst the owners.

Creditworthiness: A lender's determination of how eligible you are to receive a loan based upon factors that help them to predict how much risk you represent as a borrower, including your: credit history, personal savings, retained assets, and current income.

Cryptocurrency: a digital currency using cryptography to secure transactions.

Deductible: A health insurance deductible is the amount of money that an insured person must pay out of pocket every year for eligible healthcare services before the insurance plan begins to cover the costs.

Default Rates: Also called a penalty rate, it refers to an increase in the interest rate charged to borrowers who have missed a regular periodic loan payment.

Delayed gratification: Refers to the ability to put off something mildly fun or pleasurable now in order to wait for something that is greatly fun, pleasurable, or rewarding later. For example, you could watch TV the night before an exam, or you could exhibit delayed gratification and study for the exam.

Dependents: Individuals who rely on a taxpayer for financial support, often including children or other relatives, allowing the taxpayer to claim certain tax benefits.

Depression: An extreme recession lasting two or more years

Disability Insurance: Disability insurance is a type of insurance protecting against loss of income due to disability.

Dividend Reinvestment Plans: A dividend reinvestment program (DRIP) is an equity investment option offered directly by the underlying company. The investor does not receive dividends in cash; instead, they are reinvested directly in the underlying equity.

Durable Skills: A set of essential skills necessary for personal, academic, and professional success. These skills last a lifetime and power entire careers. They remain relevant over time and apply across industries, roles, and situations.

Earning Power: The ability to generate earnings in return for goods and services.

Economic Reasoning Skills:

Economic System: A system deployed by a society that addresses what products to produce, how to produce them, and for whom they are produced

Emergency Fund: Money set aside for unanticipated expenses or loss of income

Employability: A set of skills, education, and attributes that makes individuals more likely to be employed in their occupations.

Entrepreneur: Be your own boss, take advantage of business opportunities, introduce new products or services, better use of skills and knowledge, more creativity, and control. A person who creates a new business and bears the risks as well as the rewards.

Expansion: Growth in the economy as measured by an increase in the GDP over two consecutive quarters.

FAFSA (Free Application for Federal Student Aid) is used to calculate the Expected Family Contribution (EFC).

FCIC: The Federal Deposit Insurance Corporation (FDIC) is a United States government corporation operating as an independent agency created by the Banking Act of 1933. As of August 2014, it provides deposit insurance guaranteeing the safety of a depositor's accounts in member banks, up to \$250,000 per deposit ownership category per insured bank. As of August 27, 2014, the FDIC insured deposits at 6,638 institutions.

Federal Reserve (the Fed): the central bank of the United States

Federal Taxes: A source of income for the federal government for the development of the economy, infrastructure, and improving other sectors such as education and health care.

FICA: Federal Insurance Contribution Act. Includes social security and Medicare.

Finance Charges: Any fee charged in association with the cost of credit, such as interest and financial transaction fees

Fiscal Policy: Changes that the government makes in spending, or taxation, to achieve economic objectives

Fixed Expenses: A cost that can be expected at regular intervals and that remains the same amount (e.g.,

monthly rent payment)

Form 1040: The federal income tax form U.S. taxpayers use each year to report income, claim deductions and credits, and determine whether they owe taxes or will receive a refund.

Fraud: Occurs whenever someone attempts to deceive a consumer with a promise of goods, services, money, or other benefits that really do not exist, were never intended to be provided, or were misrepresented.

Grace Period: Refers to the period of time that the lender will allow to pass before they assess penalties and fees onto the borrower

Grants: Money given by a government, college, organization, or other group to help pay for education or a specific purpose; grants usually do not have to be repaid if the requirements are met.

Gross: Income before Taxes or other deductions.

Health Insurance: Health insurance pays most medical and surgical expenses and preventive care costs incurred by the insured person in return for a monthly premium.

Homeowner Insurance: Homeowners' insurance is a form of property insurance that covers losses and damage to an individual's home and personal property.

I-9: Verification form for legal work (social security card, driver's license).

Identity Theft: The fraudulent obtaining of one's private identity, used for financial gain as a result of the robbery.

Index Funds: An index fund is a type of mutual fund or exchange-traded fund (ETF) whose portfolio is constructed to match or track the components of a financial market index, such as the Standard & Poor's 500 Index (S&P 500). An index mutual fund is said to provide broad market exposure, low operating expenses, and low portfolio turnover. These funds track their benchmark index regardless of market conditions.

Inflation: An increase in the price average of products, which leads directly to a loss in buying power of a given currency.

Installment Loans: The type of credit loan with regularly scheduled principal and interest payments, so that the original debt is scheduled to be repaid at the end of the loan. A car loan is an example of an installment loan.

Insurance Policy: A written contract between the policyholder (the person or company who purchases the policy) and the insurer (the insurance company).

Interest: One of two credit variables, along with principal, which refers to the amount the lender charges for the use of their money, typically represented as a percentage added to the principal.

Late Fees: Refers to the penalty a lender charges a borrower for not making a payment on time, beyond the loan's grace period.

Leasing: Paying to use someone's property, such as a car or home, for a long period.

Lifetime Earnings: The amount of money that you can expect to earn during a career at a particular job.

Lifetime Limit: A cap on the total lifetime benefits you may get from your insurance company. After a lifetime limit is reached, the insurance plan will no longer pay for covered services.

Limits of Coverage: The largest total amount the insurance company will pay for covered losses. Many policies have multiple limits - a certain amount per person, another amount per accident, and sometimes an aggregate limit on all losses paid during the policy term.

Market (Economic System): An Economic system whereby the factors of production are generally controlled by private citizens and private firms who are in competition for resources and act in accordance with the laws of supply and demand

Mixed (Economic System): An Economic system that blends elements of the market and command systems. In such a system, private property is common, but the government inserts its authority over certain markets or limits access to certain markets

Monetary Policy: Changes that the Fed makes to the supply of money in order to stabilize the economy.

Money Management: Making decisions about how much to allocate of one's liquid assets proportionately to saving and investing categories

Mortgage: The type of amortized installment loan taken for the purpose of purchasing housing

Mutual Funds: A mutual fund is a financial vehicle that pools assets from shareholders to invest in securities like stocks, bonds, money market instruments, and other assets.

My529 Plan: A tax-advantaged plan that is designed to be used for the beneficiary's education expenses.

NCUA: The National Credit Union Administration (NCUA) is the independent federal agency that regulates, charters, and supervises federal credit unions. With the backing of the full faith and credit of the U.S.

Government, NCUA operates and manages the National Credit Union Share Insurance Fund (NCUSIF), insuring the deposits of more than 98 million account holders in all federal credit unions and the overwhelming majority of state-chartered credit unions.

Net: Income after Taxes and deductions (Take-home pay).

Non-sufficient funds (NSF): NSF is an acronym used in the banking industry to signify that there are "non-sufficient funds" in an account in order to honor a check drawn on that account. Colloquially, this is known as a "bounced check" or "bad check". Also, the fees associated with NSF.

Opportunity cost: To properly evaluate opportunity costs, the costs and benefits of each available option must be weighed against those of the others.

Pay Yourself First (PYF): A phrase commonly used in personal finance and retirement planning literature that means to automatically route your specified savings contribution from each paycheck at the time it is received. Pay yourself before paying your monthly living expenses and making discretionary purchases.

Payday Loans: a short-term, unsecured loan characterized by high interest rates made against future income. **Peer-to-peer transfers:** Peer-to-peer payment services let you use a bank account or a credit or debit card to pay friends or family from your phone.

Pell Grant: Money from the government that doesn't have to be repaid.

Personal Finance: A branch of Microeconomics that is concerned with the income, assets, and debts of the individual

Phishing: Pretexting or tricking someone online to give up sensitive information in order to commit identity theft.

Pharming: An identity theft technique that uses email viruses to redirect someone from a legitimate website to an official-looking website, designed to commit identity theft

Ponzi Scheme: A form of fraud that lures investors and pays profits to earlier investors with funds from recent investors.

Predatory Lender: Lenders who take advantage of desperate or uneducated borrowers by employing unethical, unfair, deceptive, or fraudulent tactics in credit

Premium: The amount an individual or business must pay for an insurance policy.

Present Bias: The tendency to value immediate rewards more highly than future rewards, often leading to decisions that favor short-term gratification over long-term goals.

Principal: One of two credit variables, along with interest, which refers to the amount outstanding on a loan

Purchasing power: The value of money in terms of the real goods and services it can purchase.

Pyramid Scheme: An illicit business model where profits are based on the investor's ability to recruit other individuals who are enrolled to make payments to their recruiters. Generally, neither a product nor a service is delivered.

Real Estate as an Investment: Investment in real estate is real estate that generates income or is otherwise intended for investment purposes rather than as a primary residence.

Recession: A slowdown in the economy as measured by a falling GDP for two consecutive quarters.

Renting: Paying for the short-term use of someone's property, such as a car or home.

Renter Insurance: The policy protects against losses to the tenant's personal property within the rented property.

Resume: A brief written account of personal, educational, and professional qualifications and experience, as prepared by an applicant for a job.

Retirement Planning: the process of determining retirement income goals and the actions and decisions necessary to achieve those goals. Retirement planning includes identifying sources of income, estimating expenses, implementing a savings program, and managing assets.

Return on Investment: A measurement of an investment's worth (ROI).

Risk Management: Risk management is the ongoing process of identifying, analyzing, evaluating, and treating loss exposures, and monitoring risk controls and financial resources to mitigate the adverse effects of loss.

Risk vs Reward: A ratio used by many investors to compare the expected returns of an investment to the amount of risk undertaken to capture these returns. This ratio is calculated mathematically by dividing the amount he or she stands to lose if the price moves in the unexpected direction (i.e. the risk) by the amount of profit the trader expects to have made when the position is closed (i.e. the reward).

Roth 401(k): A Roth 401(k) is an employer-sponsored retirement savings account that is funded using after-tax dollars.

Roth IRA: An individual retirement plan that bears many similarities to the traditional IRA, but contributions are not tax-deductible, and qualified distributions are tax-free. Similar to other retirement plan accounts, non-qualified distributions from a Roth IRA may be subject to a penalty upon withdrawal.

Savings Account: A savings account is a type of account offered by banks or credit unions that provides a safe place to store your money and often earns compound interest.

Scarcity: The human condition in which wants are limitless, and the reality that the resources used to satisfy wants are limited

Scholarships: Money from a school or a company that doesn't have to be repaid to be used for educational purposes.

Secured Credit: A loan whereby collateral has been pledged to secure the loan, guaranteeing that the lender will receive at least some form of recompense in the event of default

Simple Interest: Interest earned only on the principal (the original loan amount).

SIPC: SIPC protection helps address your risk of losing your securities and cash held by the firm if it fails or goes out of business. If a SIPC member brokerage firm fails, SIPC protects its customers against the loss of securities and cash deposited with the SIPC member firm for the purchase of securities. SIPC protection advances funds of up to \$500,000 per customer (including a \$250,000 limit for cash claims) to cover a shortfall in customer property.

State Taxes: In Utah, the source of income for the government to fund public education.

Status-Quo Bias: An emotional preference for the current state of affairs, leading individuals to resist change even when better alternatives exist.

Stocks: Stocks are a type of security that gives stockholders a share of ownership in a corporation.

Student Loan: The type of installment loan taken for the purpose of post-secondary education, such as college or vocational training.

Tax credits: Amount that is deducted directly from the tax burden.

Tax deductions: A taxpayer's child, stepchild, foster child, sibling, or relative to the taxpayer. The taxpayer provides more than 50% support. Other factors, such as age, US citizenship, and divorce decrees, also play a role.

TC-40: State income tax form filed by individuals in the state of Utah.

Term Life Insurance: Term life insurance guarantees payment of a stated death benefit to the insured's beneficiaries if the insured person dies during a specified term.

The Law of Demand: In a market economy, when the price of a good or service increases, less of it will be

consumed. Conversely, when the price of a good or service decreases, consumption increases.

The Law of Supply: In a market economy, when the price of a good or service increases, more of it will be produced by the supplier. Conversely, when prices fall, producers will produce less.

Time Value of Money- Compound Interest: The idea that money available at the present time is worth more than the same amount in the future due to its potential earning capacity. This core principle of finance holds that, provided money can earn interest, any amount of money is worth more the sooner it is received.

Title Loans: a short-term loan characterized by high interest secured by the collateral of a car title

Traditional IRA: A traditional IRA is a retirement savings account that offers tax advantages.

Unbanked: Individuals who do not have access to or use traditional banking services, such as checking or savings accounts, often rely on alternative financial services.

Unsecured Credit: A loan whereby no collateral has been pledged

Variable Expenses: A cost that appears irregularly or that changes in amount (e.g., utility bills)

Voluntary deductions: Amounts withheld for things such as retirement, healthcare, charitable contributions, or savings.

W-2: Tax form you receive from your employer that lists your earnings for the previous year and all withholdings. You need this form to file your taxes.

W-4: Tax form you fill out for your employer to determine the amount of taxes taken out of your paycheck.

Whole Life Insurance: Whole life insurance guarantees payment of a death benefit to beneficiaries in exchange for level, regularly due premium payments.

Work-Study: Money given by an organization for a specific purpose.

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: R277-702, Procedures for the Utah High School Completion Diploma (Amendment & Continuation)

Agenda item type:

Action Item

Recommended Action:

That the Committee continue and approve R277-702, Procedures for the High School Completion Diploma, Draft 1, on first reading and forward to the Board for approval on second and final reading.

Purpose of Memo:

Staff recommendation

Background:

R277-702 is soon approaching its five-year review. Staff recommends continuation of the rule.

Additionally, staff recommend removing the oversight category and updating Section 4 to clarify when non-resident students can take a high school equivalency exam in Utah, and to clarify when Utah residents can complete a high school equivalency exam online.

Staff will present R277-702, Draft 1, for consideration and approval.

Authorizing, and Implemented or Interpreted Law: [Art X Sec 3](#); [53E-3-501\(1\)\(b\)](#); [53E-3-401](#)

Contact:

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Attachments:

1. R277-702 - Draft 1 - August 2026 Committee
2. R277-702 Reporting Burden and Fiscal Impact Estimate Form

R277. Education, Administration.

R277-702. Procedures for the Utah High School Completion Diploma.

R277-702-1. Authority^[,] and Purpose^[,] ~~and Oversight Category~~.

(1) This rule is authorized by:

(a) Utah Constitution Article X, Section 3, which vests general control and supervision of public education in the Board;

(b) Subsection 53E-3-501(1)(b), which directs the Board to adopt rules regarding access to programs, competency levels, and graduation requirements; and

(c) Subsection 53E-3-401(4), which allows the Board to make rules to execute the Board's duties and responsibilities under the Utah constitution and state law.

(2) The purpose of this rule is to describe the standards and procedures required for an individual to obtain a Utah High School Completion Diploma.

~~[(3) This Rule R277-702 is categorized as Category 2 as described in Rule R277-111.]~~

R277-702-2. Definitions.

(1) "High school equivalency exam" or "HSE exam" means a Board approved examination whose test modules are aligned with:

(a) current high school core standards; and

(b) the college and career readiness standards for adult education.

(2) "Out-of-school youth" means an individual 16 to 19 years of age whose high school cohort has not graduated and who is no longer enrolled in a K-12 program of instruction.

(3) "Utah high school completion diploma" means a completion diploma issued by the Board and distributed by a Board-approved contractor, to an individual who has passed all subject modules of the HSE exam at a Utah HSE exam testing center.

R277-702-3. Administrative Procedures and Standards for Testing and Certification.

(1)(a) The Superintendent shall contract with a third party contractor in accordance with state procurement law to administer HSE exams in the state.

(b) The Superintendent may contract with public non-profit institutions within the state to administer HSE exams and provide related testing services.

(c) The Superintendent shall determine the number and location of the institutions designated as testing centers in a manner that ensures that the test is reasonably accessible to potential applicants.

(d) The Superintendent shall develop requirements for HSE exam testing centers in conjunction with the contractor approved in accordance with Subsection (1)(a).

(2) The Superintendent shall develop minimum scores required for passing an HSE exam in conjunction with a vendor chosen in accordance with Subsection (1)(a).

(3) The Superintendent shall award a diploma to a candidate who receives a passing score on an HSE exam.

R277-702-4. Eligibility for HSE Testing.

(1)(a) Any individual may take a Utah HSE exam at an in-person testing center in Utah regardless of state of residency.

(b) A Utah resident may take an online proctored exam if:

(i) the student is actively working with a USBE sponsored prep center; or

(ii) the student cannot access in-person testing due to geography, disability, or other unique circumstances.

(2) A candidate for the HSE exam:

(a) shall be at least 16 years of age when of registration for the exam; and

(b) may not be enrolled in any Utah k-12 school unless enrolled in the Focused Graduation Pathway as described in Rule R277-722.

(3) A 16-year-old candidate shall submit a completed state of Utah HSE Candidate and Adult Education Eligibility Form, which shall include:

58 (a) verification in a manner approved by the Superintendent that the candidate is
59 not enrolled in a school;

60 (b) verification that the candidate understands and accepts the consequences
61 and educational choices associated with the candidate's withdrawal from a K-12
62 program of instruction, including the prohibition from returning to a K-12 program
63 anywhere in Utah upon successful passing of an HSE exam; and

64 (c) signed acknowledgment from the candidate's parent or guardian specifically
65 stating that the candidate and parent or guardian:

66 (i) understand and accept the consequences and educational choices
67 associated with the candidate's decision to withdraw from a K-12 program of instruction;
68 and

69 (ii) authorize the candidate to take an HSE exam; and

70 (d) verification from a representative of a Utah state-sponsored adult education
71 district program that the candidate demonstrates academic competencies to meet with
72 success in passing the HSE exam.

73 (4) A student enrolled in the Focused Graduation Pathway as described in Rule
74 R277-722 may take a Utah HSE exam while enrolled in any participating Utah K-12
75 school and does not need to submit a completed state of Utah HSE Candidate and
76 Adult Education Eligibility Form.

77 (5) A 16 year-old candidate may provide a marriage certificate in lieu of the
78 requirement of Subsection (3)(c) if the candidate is married.

79 (6) A 17 or 18 year-old candidate whose cohort has not graduated shall submit a
80 state of Utah HSE Candidate and Adult Education Eligibility Form, which shall include:

81 (a) verification in a manner approved by the Superintendent that the candidate is
82 not enrolled in school; and

83 (b) the signature of the candidate's parent or guardian authorizing the test.

84 (7) A candidate may submit a marriage certificate in lieu of the requirement
85 contained in Subsection (5)(b) if the candidate is married.

(8) An out-of-school youth of school age who has not successfully passed all HSE exam modules shall be allowed to return to a k-12 public school before the time their class graduates with the understanding and expectation that all necessary requirements for the traditional k-12 diploma shall be completed before issuance of a regular high school diploma.

(9) An out-of-school youth of school age who has received a Utah high school completion diploma is not eligible to return to a k-12 public school unless it is required for provision of a free appropriate public education under the Individuals with Disabilities Education Act, 20 U.S.C., Chapter 33.

R277-702-5. Fees.

(1) The Superintendent, with approval of the Board, shall adopt uniform fees for the Utah high school completion diploma and uniform forms, deadlines, and accounting procedures to administer this program for inclusion with the contract with the contractor identified in accordance with Subsection R277-702-3(1)(a).

(2) An approved testing center may only collect a fee in accordance with the amounts and procedures approved pursuant to Subsection (1).

R277-702-6. Official Transcripts.

(1) The Board shall accept HSE exam scores when an original score is reported by:

- (a) a Board-approved HSE exam testing center;
- (b) the transcript service of the Defense Activity for Non-Traditional Educational Support;
- (c) a Veterans Administration hospital or center; or
- (d) a contractor selected by the Superintendent in accordance with Subsection R277-702-3(1)(a) or the contractor's authorized agent.

(2) The Superintendent shall include a candidate's HSE exam result on the candidate's official transcript.

R277-702-7. Adult High School Outcomes.

(1) A local board of education may adopt standards and procedures for awarding up to five units of credit on the basis of test results which may be applied toward an adult education secondary diploma only if the student was enrolled in an adult education program before July 1, 2009 and an approved HSE exam was transcribed before July 1, 2009.

(2) An individual who took and passed an approved HSE exam before January 1, 2002 may enroll in an adult education program now and in the future to obtain an adult education secondary diploma upon completion of graduation requirements as defined in Rule 277-733, but may not apply for a previously issued HSE exam certificate to be converted to a Utah high school completion diploma.

(3) An individual who took and passed an approved HSE exam in the state of Utah between the dates of January 1, 2002 and June 30, 2009 may apply for a Utah high school completion diploma to replace the originally issued HSE exam certificate issued by the Board or they may enroll in an adult education program to complete the necessary requirements for an adult education secondary diploma.

R277-702-8. HSE Exam Security.

(1) The following individuals may have access to the HSE exam:

(a) Board staff approved by the Superintendent;

(b) Authorized test examiners;

(c) A contractor selected pursuant to Subsection R277-702-3(1)(a) and the contractor's agents;

(d) Approved exam candidates during exam administration; or

(e) An individual granted access in writing by the Superintendent.

(2) A test facilitator shall administer an HSE exam in strict accordance with procedures and guidelines specified by the Superintendent and the contractor approved in accordance with Subsection R277-702-3(1)(a).

- (3) School staff members may not:
- (a) provide a student directly or indirectly with specific questions or answers from any official HSE exam;
 - (b) allow a student access to any testing material, in any form, before test administration; or
 - (c) knowingly and intentionally do anything that would inappropriately affect the security, validity, or reliability of an exam score of any individual student or group taking an HSE exam.
- (4) A licensed educator who intentionally violates this Section R277-702-8 may be subject to disciplinary action under Section 53E-6-604 and Rule R277-217.

KEY: adult education, educational testing, student competency

Date of Last Change: February 7, 2025

Notice of Continuation: December 2, 2021

Authorizing, and Implemented or Interpreted Law: Art X Sec 3; 53E-3-501(1)(b); 53E-3-401

Utah State Board of Education

Reporting Burden and Fiscal Impact Estimate

R277-702 – Procedures for the Utah High School Completion Diploma (Amendment)

1. Reporting Burden for LEAs

This rule change does not create new reports for LEAs.

2. Estimated Fiscal Impact on USBE

This rule change is not estimated to have measurable fiscal impacts on USBE.

3. Estimated Fiscal Impact on LEAs

This rule change is not estimated to have fiscal impacts on LEAs.

Author: Sam Urie

UTAH STATE BOARD OF EDUCATION

Subject:

INFORMATION: Professional Outreach Programs (POPs) Program Review R277-444

Agenda item type:

Information Item

Recommended Action:

Information

Purpose of Memo:

Staff recommendation

Background:

Board Rule [R277-444-7 \(3a\)](#) Distribution of Money to Arts Organizations, POPs Program Requirements specify that at least once every four years the Superintendent will report the program evaluation results to the Board. This presentation provides a program overview and evaluation results.

Contact:

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Attachments:

1. POPS Four Year Program Review
2. POPS Four Year Review - Standards and Assessments



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Official Board Memo
Backup Document

Title: POPS Four Year Program Review

Draft Number: 1

Date: 8/7/2026

Rule/Statute: R277-444

Contact Person and Email: Liz Bunker
liz.bunker@schools.utah.gov

**This draft is for consideration during
the (MM/DD/YYYY) Committee/Board
Meeting**

POPS Program Evaluation Rubric - NEHMA

Organization: NEHMA (Nora Eccles Harrison Museum of Art)

Reviewer: Liz Bunker

Date: 5/20/2026

Link to POPS Profile Form: [POPS NEHMA POPS Profile Form](#)

Link to NEHMA's K-12 education site: [K-12 Educational Opportunities | NEHMA | USU](#)

Quick Facts:

- Legislative Allocation - \$225,000
- Students served (SY26) - 26,212
- Teachers served (SY26) - 5,621
- Member of POPS since 2019

About NEHMA:

The mission of the Nora Eccles Harrison Museum of Art is to foster engagement with modern and contemporary art to facilitate learning and promote dialogue about ideas important to the people of Utah and the mission of Utah State University.

Reporting Requirements:

[Board rule R277-444](#) states: "At least once every four years, the Superintendent shall review and evaluate all organizations' participation in the POPS program, and report to the Board the results of the review and evaluation, and make a recommendation to the Board



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regarding an organization's continued participation in the program". The outlined requirements for evaluation are:

- (i) evaluation of an educational service plan, or year-end report;
- (ii) attendance at an educational service or a site visit and;
- (iii) financial monitoring.

This rubric is designed to fulfill the requirements of this board rule by providing the required evaluation and recommendation to the Board by the Superintendent. POPS reviews programs through the 'Peer Review' process that provides ongoing evaluation of each program on a four-year [rotation](#).

Rating Scale:

- **Met:** The organization consistently meets expectations and demonstrates adherence to board rule requirements.
- **Not Met:** The organization is not meeting the expectation as outlined in board rule.

Educational Service Plan			
Criteria	Met	Not Met	Evidence, Notes, or Links:
Academic offerings are aligned to Fine Arts Core Standards by artistic medium; may also align to other subject's standards as seen on pre-and-post educational materials and observed in Peer Review and website	☒ Fine Arts core standards are present and alignment is clear	☐ No standards present or standards do not align	Museum Visit Grade 6 Intermountain (1) - See page 12



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Annual Report:			
Criteria	Met	Not Met	Evidence, Notes, or Links:
Timely Submission	☒ All the required documents are submitted before the submission deadline.	☐ Required documents are not submitted before the submission deadline.	NEHMA submitted their annual report within the deadline.
Narrative Report Requirements	☒ All required elements of the narrative are clearly provided, well organized, and have supporting documentation.	☐ Required elements of the narrative are missing.	POPS NEHMA POPS Profile Form - Google Docs
Self-Evaluation System	☒ Evaluation systems are implemented, results are reported, and work toward continuous improvement.	☐ Evaluation system is not implemented; results are inconsistent or not reported.	Participant Surveys: NEHMA has an evaluation process for every school that participates in their programs, distributing educational surveys to all participating teachers to gather direct feedback. Weekly Team Reviews: The NEHMA education team meets on a weekly basis to review the feedback received from the surveys, discuss curriculum and scheduling, and brainstorm the development of future



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	nt is clear.		programs. Teacher Advisory Panel: To further evaluate and guide their work, NEHMA is creating a new advisory panel this year made up of local teachers from Cache Valley
Artform cohort offered Educational Services to all Utah schools at least once in the three-year cycle as reported in the annual report	☒ Education services offered	☐ Education services not sufficiently offered, lack of documentation	The visual arts POPS groups (Springville, UMFA, NEHMA, and UMOCA) employ a tiered three-year rotation strategy to provide consistent fine arts outreach across the state. High-population districts like Jordan or Alpine (and those neighboring a museum) receive scheduled visits on a yearly basis. Rural districts are served once every three years by each museum to ensure equitable access to diverse arts programming.

Financial Monitoring			
Criteria	Met	Not Met	Evidence, Notes or Links:
Matching Funds	☒ The organization provided at least a 1-to-1 match with state funds for the last four years	☐ The organization provided less than a one-to-one match with state funds	
Receipts on File	☒ Organization	☐ Organizatio	NEHMA is required to keep receipts on



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	has 5 years of receipts on file and are able to provide requested receipts	n has less than 5 years of receipts on file or cannot provide receipts when asked	file for five years; can provide both physical and digital versions.
Allowable Expenditures	☒ All reimbursement requests include allowable expenditures and are easily reviewed	☐ Reimbursement requests have unallowable expenditures or there are ongoing issues with requests	
Cost Effectiveness and Procedural Efficiency	☒ The organization maximizes the reach and quality of its educational services while maintaining minimal operational costs	☐ The organization does not demonstrate cost effectiveness or procedural efficiency in its use of POPS funds	Small, Qualified Staff: NEHMA operates highly efficiently with a very lean staff, consisting of just two full-time employees (with a Master's in art education) and two part-time employees. They maximize their workforce by hiring and providing monthly training to USU student education assistants. Strategic Travel: To minimize travel expenses, NEHMA carefully plans their travel routes to ensure optimal coverage while reaching the maximum number of students and teachers. Leveraged Funding: Utah State University matches the funding



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			provided by POPS dollar-for-dollar. Additionally, NEHMA secures grant funding from the Kathryn C. Wanlass Foundation, which allows them to hire qualified educators and keep all programs completely free for Utah schools, teachers, and students. Streamlined Tracking and Scheduling: NEHMA staff developed a dedicated spreadsheet to track all communication and services provided to target districts. They also maintain an easy-to-use scheduling system on their website, ensuring their programs are accessible to any school, not just their annual target districts. Continuous Feedback Loop: NEHMA distributes educational surveys to all participants to gather feedback. Their education team then meets on a weekly basis to review this feedback, discuss scheduling and curriculum, and brainstorm the development of future programs.
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Peer Review: POPS Peer Reviews			
<u>Date:</u>	<u>Program Observed:</u>	<u>Links to Provided Education Materials:</u>	<u>Peer Review Observation Notes/Photos:</u>



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12/16/2025 at NEHMA	Repainting the I - The Murals of the Intermountain Indian School	Museum Visit Grade 6 Intermountain (1)	The exhibit was incredible. 'Repainting the I' was a multi-year endeavor and was particularly meaningful to the residents of Cache County, preserving murals and stories that may have otherwise been lost to time. The facilitators and materials encourage students to think about their own identity and what home means to them. The student work exhibited in reaction to the murals showed a deep reflection of these concepts using collage techniques. The study guide is especially well-designed and have excellent pre and post lessons/activities/reflections for students.
Peer Feedback			
<u>Peer-Identified Opportunities for Improvement:</u>	<u>Positive Peer Feedback:</u>	<u>Implementation Plan:</u>	
Core Standards Visibility: Reviewers recommended explicitly listing out the "Core Standards Met" directly on the educational guides. Streamlining Curriculum: The current materials rely heavily on teacher facilitation, which reviewers noted could lead to inconsistent	Cohesive Learning Arc: Reviewers praised the exceptional printed materials and lesson plans, noting a clear, cohesive learning arc across pre-visit, museum, and post-visit lessons. The use of multiple modalities—such as	From Shannon Erickson at NEHMA: Based on reviewer feedback, we recognize the need to make the Utah Core Standards easier to locate within the curriculum materials. The standards are currently organized by subject area in the appendix. To	



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implementation. They suggested creating more streamlined or "plug-and-play" options.

Expanding Art Creation: Reviewers expected art creation to be more central to the museum visit lesson plans, noting there is room to include more projects (like painted/collaged plates) beyond just the weaving activity. They also recommended attaching a specific art activity to the virtual experience.

Alternative Activities: While the "I Am From" poem is meaningful, it is commonly used. Offering alternative or extension options could help maintain student engagement and choice.

Acoustics: A reviewer noted that the physical museum space has an echo that can be distracting, though acknowledging it may be difficult to fix.

discussion, visual analysis, and hands-on art—was highlighted as a great way to engage different types of learners.

Cultural Respect: NEHMA received high praise for their respectful and reverent handling of the difficult realities surrounding the Intermountain Indian School.

High-Quality Educators: The museum educators were described as friendly, knowledgeable, and encouraging. Teachers noted that the Mobile Art Truck instructors were particularly great at managing students and presenting information in an interesting and respectful way.

Impactful Student Connections: Students deeply connected with the hands-on projects, such as the ribbon/pipecleaner weaving activity, which built empathy, introspection, and a personal connection to cultures they previously had little experience with.

Cross-Curricular Opportunities: Peers noted

improve usability, we will retain this organization while adding a clear reference in the introduction and table of contents directing teachers to the standards section.

This curriculum was intentionally designed using an arts integration approach, with poetry and creative writing serving as the primary artistic focus because student poetry was a significant part of the Intermountain Indian School experience. The weaving activity was selected as the primary hands-on art project because it provides a meaningful connection to Indigenous artistic traditions and allows students to create a personal work of art. To better communicate the arts integration model, we will clarify in the curriculum how poetry functions as an art form alongside weaving and include suggestions for optional extension art activities that teachers may choose to incorporate.

We appreciate the feedback regarding the acoustics in the museum galleries. While the building's architecture



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	the easy-to-use lesson plans (including both written plans and presentation slides) and highlighted how effectively the program integrated language arts, such as poetry writing, with visual arts.	presents some inherent challenges, we will continue to implement strategies that improve the visitor experience, such as positioning groups in quieter gallery spaces when possible, using smaller discussion groups, and adjusting speaking locations to minimize echo.
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Compliance Resources -  Educational Services Compliance Resources.pdf			
Criteria	Met	Not Met	Notes:
Checked assurances in Utah Grants related to Compliance Resources and is in compliance with Utah education laws	☒ Checked assurances, no outstanding compliance issues	☐ Did not check assurances or has outstanding noncompliance to Utah education laws	

<u>Overall Program Summary Evaluation:</u>	<u>Staff Recommendation:</u>
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- ☒ All criteria are "Met"
- ☐ Majority of criteria are "Met"
- ☐ Majority of criteria are "Not Met"

- ☒ Continue Participation
- ☐ Continue Participation with Stipulations (Specify Stipulations)
- ☐ Recommend Conditional Continued Participation Pending Corrective Actions (Specify Actions and Timeline)
- ☐ Recommend Discontinuation of Participation

Summary:

NEHMA has successfully met all of the POPS evaluation criteria. NEHMA demonstrates excellent curricular instruction and materials with strong standards alignment. In their peer review, NEHMA's museum educators were highlighted as friendly, knowledgeable, and highly skilled at engaging students. Furthermore, NEHMA excels in cross-curricular arts integration, successfully blending Visual Arts Core Standards with language arts, math, and science through meaningful, hands-on projects like poetry writing and weaving.

In addition to its high-quality curriculum, NEHMA effectively provides statewide accessibility and operational efficiency. They actively reach students across Utah by deploying a Mobile Art Truck to rural districts, providing virtual Exploring Art Kits to larger areas, and translating programs into multiple languages. NEHMA operates with high cost-effectiveness, utilizing a small staff and maximizing its impact by securing dollar-for-dollar matching funds from Utah State University alongside additional grant support to ensure all programs remain entirely free. Through a strategic three-year rotation plan developed in collaboration with other POPS organizations, NEHMA effectively ensures that every K-12 school in Utah is offered services.



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POPS Four Year Program Evaluation Rubric - Plan-B

Organization: Plan-B Theatre

Reviewer: Liz Bunker

Date: 7/15/2026

Link to POPS Profile Form: [POPS Plan-B POPS Profile Form](#)

Link to Plan-B's K-12 education site: [Plan-B K-12](#)

Quick Facts:

- Legislative Allocation - \$159,000
- Students served (SY26) - 30,052
- Teachers served (SY26) - 2,213
- Member of POPS since 2019

About Plan-B:

We began as a **plan b**.

After graduating from college in the late 1980s, co-founders Tobin Atkinson and Cheryl Ann Cluff had a plan: move to a larger city and become professional actors. When *plan a* didn't work out, they decided to go with the alternative: *plan b* was to create theatre here in Utah.

Fast forward to 1991: Tobin and Cheryl Ann formed a company inspired by and named for that decision. To say we operated on a shoestring in those early years is being ... generous. We were minimalist out of necessity. And then it became our artistic identity!

Plan-B evolved to also mean alternative staging, storytelling, substance, and style.

Fast forward to 2002: after more than a decade as an itinerant company, we moved permanently to the Rose Wagner Performing Arts Center, experiencing stability for the first time. By 2007, we had successfully navigated the rigorous process of becoming a Salt Lake County Arts & Culture resident company.



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Fast forward to 2013: We launched our free [K-12 education programs](#), which became part of POPS in 2019.

Fast forward to 2026: Plan-B has evolved to also mean alternative staging, storytelling, substance, and style, which we bring to our daily work of developing and producing unique and socially conscious theatre created by Utah playwrights. We share stories with a local point-of-view as well as global stories from a local perspective, drawn from a pool of local playwrights rivaling that found in any other city in the country. We believe the best way to serve our community is to reflect it onstage. Time spent with us should be the beginning of a much larger experience: our goal is to create conversation.

Sometimes Plan-B is the best alternative.

Reporting Requirements:

[Board rule R277-444](#) states: "At least once every four years, the Superintendent shall review and evaluate all organizations' participation in the POPS program, and report to the Board the results of the review and evaluation, and make a recommendation to the Board regarding an organization's continued participation in the program". The outlined requirements for evaluation are:

- (i) evaluation of an educational service plan, or year-end report;
- (ii) attendance at an educational service or a site visit and;
- (iii) financial monitoring.

This rubric is designed to fulfill the requirements of this board rule by providing the required evaluation and recommendation to the Board by the Superintendent. POPS reviews programs through the 'Peer Review' process that provides ongoing evaluation of each program on a four-year [rotation](#).

Rating Scale:

- **Met:** The organization consistently meets expectations and demonstrates adherence to board rule requirements.
- **Not Met:** The organization is not meeting the expectation as outlined in board rule.



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Educational Service Plan			
Criteria	Met	Not Met	Evidence, Notes, or Links:
Academic offerings are aligned to Fine Arts Core Standards by artistic medium; may also align to other subject's standards as seen on pre-and-post educational materials and observed in Peer Review and website.	☒ Fine Arts core standards are present and alignment is clear	☐ No standards present or standards do not align	Eb & Flo Study Guide 8.27.25 - See page two for alignment to Utah's elementary ELA, Science, Health, Social Studies, and Theatre standards.

Annual Report:			
Criteria	Met	Not Met	Evidence or Links:
Timely Submission	☒ All the required documents are submitted before the submission deadline.	☐ Required documents are not submitted before the submission deadline.	Plan-B submitted their SY26 annual report on time.
Narrative Report Requirements	☒ All required elements of the narrative are clearly provided, well organized, and have	☐ Required elements of the narrative are missing.	POPS Plan-B POPS Profile Form



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	supporting documentation.		
Self-Evaluation System	☒ Evaluation systems are implemented, results are reported, and work toward continuous improvement is clear.	☐ Evaluation system is not implemented ; results are inconsistent or not reported	Expanding on what is working - We are excited to begin a new four-month residency with students in grade 6 at Dual Immersion Academy, co-teaching with both English and Spanish Immersion teachers. Additional professional learning opportunities - In SY27, we will begin expanding access to our free, self-paced <i>Playwriting With Young People</i> and <i>Playwriting With Young Adults</i> professional development training courses as a newly-approved Altitude provider.
Artform cohort offered Educational Services to all Utah schools at least once in the three-year cycle as reported in the annual report	☒ Education services offered	☐ Education services not sufficiently offered, lack of documentation	

Financial Monitoring			
Criteria	Met	Not Met	Evidence, Notes, or Links:



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Matching Funds	☒ The organization provided at least a 1-to-1 match with state funds for the last four years	☐ The organization provided less than a one-to-one match with state funds	
Receipts on File	☒ Organization has 5 years of receipts on file and are able to provide requested receipts	☐ Organization has less than 5 years of receipts on file or cannot provide receipts when asked	Plan-B keeps seven years of receipts on file and can provide if asked.
<u>Allowable Expenditures</u>	☒ All reimbursement requests include allowable expenditures and are easily reviewed	☐ Reimbursement requests have unallowable expenditures or there are ongoing issues with requests	
Cost Effectiveness and Procedural Efficiency	☒ The organization maximizes the reach and quality of its educational services while maintaining minimal operational	☐ The organization does not demonstrate cost effectiveness or procedural efficiency in its use of POPS funds	Plan-B Theatre stands out as one of the most cost-effective POPS organizations, maintaining an incredibly efficient average cost of about \$10 per service. Despite operating with the smallest budget among their peers, Plan-B achieves exceptional procedural efficiency by creatively balancing frugality with professional excellence. For



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	costs		instance, they design their Free Elementary School Tours to be highly adaptable—featuring world premieres by Utah playwrights that can literally "fit in the trunk of a car" and be performed anywhere—which allows them to consistently serve rural schools.
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Peer Review:  POPS Peer Reviews			
<u>Date:</u>	<u>Program Observed:</u>	<u>Links to Provided Education Materials:</u>	<u>Peer Review Observation Notes/Photos:</u>
4/17/2026 at Walden School of Liberal Arts	'Eb and Flo'	• Eb & Flo Study Guide 8.27.25 • Playwriting With Young Adults (collection of resources) • Playwriting With Young People (collection of resources) • Dumbed Down Worksheet	'Eb and Flo' had exceptional student engagement. The "sung" elements particularly stuck with students and the concepts shared were high level and Utah-specific, but were accessible to the elementary aged audience due to the effective use of Utah's academic standards in ELA, Science, and Theatre. The costumes and props were simple but highly effective. The actors greeted the students as they entered and there was accessibility in the approach; students were able to ask questions of



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			the actors after the performance and I was able to observe their understanding based on the questions asked. I also found the pre-and-post materials to be well designed and engaging.
Peer Feedback			
<u>Peer-Identified Opportunities for Improvement:</u>		<u>Positive Peer Feedback:</u>	<u>Implementation Plan:</u>
• Transition from the performance to the Q&A session felt abrupt; suggesting a more fluid flow. • Technical issues with Eb's microphone caused volume fluctuations and difficult comprehension for the audience. • Inquire about the decision not to use the provided backtracks in the live presentation. • Praise for the music's impact, noting students enjoyed the call and response singing.		• Engaging & Educational: The creative 45-minute performance successfully achieved all learning outcomes, effectively teaching science concepts and modeling USBE's SEL outcomes. • Teacher Support: Educators highly valued the flexible, well-rounded resource guide for its clear alignment with core standards. • Student Connection: Performers fostered meaningful interaction through warm greetings and effective Q&A, sparking sustained	For the upcoming shows, Plan-B is looking at incorporating different transition strategies as included in the feedback.



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	student interest in the material. • Credibility: The involvement of Shoshone Elder Darren Perry added significant authority and value to the presentation.	
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Compliance Resources -  Educational Services Compliance Resources.pdf			
<u>Criteria</u>	<u>Met</u>	<u>Not Met</u>	<u>Notes:</u>
Checked assurances in Utah Grants related to Compliance Resources and is in compliance with Utah education laws	☒ Checked assurances, no outstanding compliance issues	☐ Did not check assurances or has outstanding noncompliance to Utah education laws	



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Overall Summary and Recommendation

Based on the evaluation of the criteria above, provide an overall summary of the organization's performance and a recommendation regarding its continued participation in the POPS program.

<u>Overall Program Summary Evaluation:</u>	<u>Staff Recommendation:</u>
☒ All criteria are "Met" ☐ Majority of criteria are "Met" ☐ Majority of criteria are "Not Met"	☒ Continue Participation ☐ Continue Participation with Stipulations (Specify Stipulations) ☐ Recommend Conditional Continued Participation Pending Corrective Actions (Specify Actions and Timeline) ☐ Recommend Discontinuation of Participation
<u>Justification for Rating:</u>	
Plan-B Theatre has successfully met all POPS evaluation criteria. Plan-B effectively maximizes their educational impact, reaching over 30,000 students as one of the most cost-effective POPS organizations - they more than doubled the students they served in SY26. Their peer review process highlighted high levels of student engagement, accessibility, relevance (especially noted in custom works created by local playwrights) and high quality instructional materials.	



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UMOCA Program Evaluation Rubric - UMOCA

Organization: UMOCA

Reviewer: Liz Bunker, K-12 Fine Arts Specialist

Date: 5/1/2026

Link to POPS Profile Form: [POPS UMOCA Profile Form](#)

Link to UMOCA's K-12 education site: [Learn - UMOCA](#)

Quick Facts:

- Legislative Allocation - \$216,000
- Students served (SY26) - 17,423
- Teachers served (SY26) - 789
- Member of POPS since 2019

About UMOCA:

Located in the heart of downtown Salt Lake City, the Utah Museum of Contemporary Art (UMOCA) is an award-winning aesthetic force dedicated to advancing contemporary art in Utah since 1931. The museum features groundbreaking artwork by local, national, and international artists, offering exploration in the contemporary cultural landscape through exhibitions, films, events, and classes.

UMOCA reaches more than 123,000 Utah residents and visitors annually through visitorship, community events, workshops, and extensive arts education programming. UMOCA's varied contemporary art exhibitions feature an array of local and national artists, exploring themes that connect residents and visitors alike with our community and region. These exhibitions, often interconnected in theme and concept, become the foundation for UMOCA's public programming and community engagement.



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UMOCA has been a member of POPS since joining the provisional program in 2019, and becoming a full POPS member in 2023. They collaborate with POPS groups NEHMA, UMFA, and Springville Museum of Art to provide Visual Arts Education outreach.

Reporting Requirements:

[Board rule R277-444](#) states: "At least once every four years, the Superintendent shall review and evaluate all organizations' participation in the POPS program, and report to the Board the results of the review and evaluation, and make a recommendation to the Board regarding an organization's continued participation in the program". The outlined requirements for evaluation are:

- (i) evaluation of an educational service plan, or year-end report;
- (ii) attendance at an educational service or a site visit and;
- (iii) financial monitoring.

This rubric is designed to fulfill the requirements of this board rule by providing the required evaluation and recommendation to the Board by the Superintendent. POPS reviews programs through the 'Peer Review' process that provides ongoing evaluation of each program on a four-year [rotation](#).

Criteria:

- **Met:** The organization consistently meets expectations and demonstrates adherence to board rule requirements.
- **Not Met:** The organization is not meeting the expectation as outlined in board rule.

Educational Service Plan:			
Criteria	Met	Not Met	Evidence, Notes, or Links:



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Academic offerings are aligned to Fine Arts Core Standards by artistic medium; may also align to other subject's standards as seen on pre-and-post educational materials and observed in Peer Review and website.	☒ Fine Arts core standards are present and alignment is clear	☐ No standards present or standards do not align	UMOCA Educator Manual - see page 8 of the educator manual.
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Annual Reports:			
Criteria	Met	Not Met	Evidence, Notes, or Links:
Timely Submission	☒ All the required documents are submitted before the submission deadline.	☐ Required documents are not submitted before the submission deadline.	UMOCA submitted their annual report on time.
Narrative Report Requirements	☒ All required elements of the narrative are clearly provided, well organized, and have supporting documentat	☐ Required elements of the narrative are missing.	UMOCA Profile Form



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	ion.		
Self-Evaluation System	☒ Evaluation systems are implemented, results are reported, and work toward continuous improvement is clear.	☐ Evaluation system is not implemented; results are inconsistent or not reported	UMOCA's plans for continued evaluation and improvement focus on streamlining processes, improving outreach, and supporting staff, particularly in light of exceeding goals in the Art Truck and classroom visit programs but continuing to work to meet their internal field trip goal.
Artform cohort offered Educational Services to all Utah schools at least once in the three-year cycle as reported in the annual report	☒ Education services offered	☐ Education services not sufficiently offered, lack of documentation	The visual arts POPS groups (Springville, UMFA, NEHMA, and UMOCA) employ a tiered three-year rotation strategy to provide consistent fine arts outreach across the state. High-population districts like Jordan or Alpine (and those neighboring a museum) receive scheduled visits on a yearly basis. Rural districts are served once every three years by each museum to ensure equitable access to diverse arts programming.

Financial Monitoring:			
Criteria	Met	Not Met	Evidence or Links:
Matching Funds	☒ The organization provided at least a 1-to-1	☐ The organization provided less than a	UMOCA's allocation is 216,000. In SY25, they matched funds slightly over the 1-to-1 requirement (1-to-1.03) at



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	match with state funds for the last four years	one-to-one match with state funds	\$222,715. In SY26, they went over match by about 1K.
Receipts on File	☒ Organization has 5 years of receipts on file and are able to provide requested receipts	☐ Organization has less than 5 years of receipts on file or cannot provide receipts when asked	Yes, and they can be provided.
<u>Allowable Expenditures</u>	☒ All reimbursement requests include allowable expenditures and are easily reviewed	☐ Reimbursement requests have unallowable expenditures or there are ongoing issues with requests	
Cost Effectiveness and Procedural Efficiency	☒ The organization maximizes the reach and quality of its educational services while maintaining minimal operational costs	☐ The organization does not demonstrate cost effectiveness or procedural efficiency in its use of POPS funds	Low Cost Per Service: UMOCA operates highly efficiently, with an average cost per service of approximately \$12. Strategic Travel: The majority of the UMOCA Art Truck costs go toward travel (gas and per diem). To justify these costs, they commit to reaching at least 50 students for every hour traveled. When visiting small rural schools that only have 50 students total, they strategically pair 2 to 3 rural schools together for a single overnight trip to maximize their impact. Smart Supply Management: During



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			curriculum development, UMOCA conducts a cost analysis to ensure activities use the lowest amount spent on materials. They also consult their booking calendar before purchasing supplies to prevent excess waste. Internal Coordination: The Education Director coordinates directly with the Curator regarding exhibition costs to ensure they are maximizing student impact alongside larger Main Gallery shows.
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Peer Review:			
<u>Date:</u>	<u>Program Observed:</u>	<u>Links to Provided Education Materials:</u>	<u>Peer Review Observation Notes:</u>
4/29/2026 at Lincoln Elementary (GSD)	Art Truck - Kelly Brooks, Movement Archives	Educator Manual	The Art Truck was parked outside of the school and I observed two different classes engage with the exhibit. There was a vast difference between classroom management support between the two groups; I watched the facilitator (Alison Neville) handle the disruption and adjust the programming on the fly seamlessly. Students were overall engaged with the content and the concept of the work was tailored to young students and the family experience in a unique way; although the artworks looked like scribbled lines (at face value), the students grasped the more



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			abstract concept being portrayed because it related to their lives. The learning activity was well executed and facilitated.
Peer Feedback:			
Peer-Identified Opportunities for Improvement:	<u>Positive Peer Feedback:</u>	<u>Implementation Plan:</u>	
- Refining temperature controls(rain can be loud on the roof and sun can warm it up more than the HVAC can manage) -Materials for the art project(currently using tracing paper which can rip/tear and doesn't work well on the rug) -Wall Clean-up! Educator Manual -K-6 version of artist biography, greater difference between pre-project visit and in-truck project - Areas for Improvement -Auditorium stop lacked direction, relevance to older grades -Additional ways to engage students other than call and answer -Greater connection between exhibition theme -Extend learning to the classroom -Greater use of our UMOCA sketchbook	-'See, think, wonder' framework -Making contemporary art accessible -Beetle glyph project in the classroom Highlights -High level of student engagement -creating art based on the artist's practice -question-based tour to help students reach their own conclusions.	Streamlining Scheduling: UMOCA fell just short of their field trip goal this year, so they are researching moving to a booking app to streamline the scheduling process for teachers, replacing their current system that requires a lot of back-and-forth emails. Improving Rural Outreach: Having just completed UMOCA's three-year outreach cycle, they have identified the districts that were most difficult to reach and plan to troubleshoot those earlier in the year. Staff Support: To help maintain their high outreach numbers (reaching 4,000 more students than anticipated with the Art Truck and classroom visits) while decreasing burnout on their small team, they have added a new part-time Education Assistant.	



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Compliance Resources -  Educational Services Compliance Resources.pdf			
Criteria	Met	Not Met	Notes:
Checked assurances in Utah Grants related to Compliance Resources and is in compliance with Utah education laws	☒ Checked assurances, no outstanding compliance issues	☐ Did not check assurances or has outstanding noncompliance to Utah education laws	

<u>Overall Program Summary Evaluation:</u>	<u>Staff Recommendation:</u>
☒ All criteria are "Met" ☐ Majority of criteria are "Met" ☐ Majority of criteria are "Not Met"	☒ Continue Participation ☐ Continue Participation with Stipulations (Specify Stipulations) ☐ Recommend Conditional Continued Participation Pending Corrective Actions (Specify Actions and Timeline) ☐ Recommend Discontinuation of Participation
<u>Summary:</u>	
UMOCA has successfully met all POPS evaluation criteria. Through its innovative educational approach, collaborative outreach, and strong financial stewardship, UMOCA provides an invaluable service by	



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making contemporary art accessible to students across Utah, particularly through their Art Truck, which brings a professional gallery experience directly to schools that cannot visit the physical museum.

By featuring living artists, UMOCA allows students to engage with artistic themes that reflect their own current interests and societal contexts rather than historical ones. UMOCA has a unique ability to teach some of the more difficult to meet visual arts standards since the work they exhibit is more conceptual.

POPS Program Evaluation Rubric - Utah Opera

Organization: Utah Opera

Reviewer: Liz Bunker

Date: 7/22/2026

Link to POPS Profile Form: [POPS Utah Opera Profile Form](#)

Link to Utah Opera's K-12 education site: [Utah Opera Teachers and Schools](#)

Quick Facts:

- Legislative Allocation - \$449,000
- Students served (SY26) - 35,395
- Teachers served (SY26) - 2,076
- Member of POPS since - 1979

About Utah Opera:

Since 1978, Utah Opera has cultivated and entertained a growing audience of more than 150,000 annually around the intermountain area. We produce opera with artistic standards of distinction and with a fresh vibrancy – new works for our area as well as the classics.

Reporting Requirements:



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[Board rule R277-444](#) states: "At least once every four years, the Superintendent shall review and evaluate all organizations' participation in the POPS program, and report to the Board the results of the review and evaluation, and make a recommendation to the Board regarding an organization's continued participation in the program". The outlined requirements for evaluation are:

- (i) evaluation of an educational service plan, or year-end report;
- (ii) attendance at an educational service or a site visit and;
- (iii) financial monitoring.

This rubric is designed to fulfill the requirements of this board rule by providing the required evaluation and recommendation to the Board by the Superintendent. POPS reviews programs through the 'Peer Review' process that provides ongoing evaluation of each program on a four-year [rotation](#).

Rating Scale:

- **Met:** The organization consistently meets expectations and demonstrates adherence to board rule requirements.
- **Not Met:** The organization is not meeting the expectation as outlined in board rule.

Educational Service Plan			
Criteria	Met	Not Met	Evidence, Notes, or Links:
Academic offerings are aligned to Fine Arts Core Standards by artistic medium; may also align to other subject's standards as seen on pre-and-post educational materials and observed in Peer Review and website	☒ Fine Arts core standards are present and alignment is clear	☐ No standards present or standards do not align	Teacher-Materials-One-Sheet.pdf - The music standards are present but not specifically named; the feedback shared was to cite them somewhere in the materials for the ease of educators and (non-music) administrators.



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Annual Report:			
Criteria	Met	Not Met	Evidence, Notes, or Links:
Timely Submission	☒ All the required documents are submitted before the submission deadline.	☐ Required documents are not submitted before the submission deadline.	Report was submitted on 7/6/2026
Narrative Report Requirements	☒ All required elements of the narrative are clearly provided, well organized, and have supporting documentation.	☐ Required elements of the narrative are missing.	POPS Utah Opera Profile Form - Google Docs
Self-Evaluation System	☒ Evaluation systems are implemented, results are reported, and work toward continuous improvement.	☐ Evaluation system is not implemented; results are inconsistent or not reported.	Post Action Reports (PARs): Utah Opera conducts frequent self-assessments called PARs to evaluate desired versus actual outcomes, identify opportunities for growth, and propose solutions for any undesired outcomes. These meetings take place either within a week of a specific annual offering or during the summer for their regularly presented programs, and the resulting documents are used as reference guides for future events.



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	ent is clear.		Educator Surveys: Following all in-school programs, educators are actively invited and encouraged to submit feedback. Educator Advisory Committee: Utah Opera (jointly with the Utah Symphony) holds regular meetings—four times a year—with a committee of K-12 educators to gain direct insight into their programs and discuss any perceived or actual obstacles to accessing them.
Artform cohort offered Educational Services to all Utah schools at least once in the three-year cycle as reported in the annual report	☒ Education services offered	☐ Education services not sufficiently offered, lack of documentation	

Financial Monitoring			
Criteria	Met	Not Met	Evidence or Links:
Matching Funds	☒ The organization provided at least a 1-to-1 match with	☐ The organization provided less than a one-to-one	Utah Opera consistently matches funds over the 1-to-1 requirement.



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	state funds for the last four years	match with state funds	
Receipts on File	☒ Organization has 5 years of receipts on file and are able to provide requested receipts	☐ Organization has less than 5 years of receipts on file or cannot provide receipts when asked	Utah Opera keeps a minimum of seven years of receipts on file and can provide as needed.
<u>Allowable Expenditures</u>	☒ All reimburseme nt requests include allowable expenditures and are easily reviewed	☐ Reimbursement requests have unallowable expenditures or there are ongoing issues with requests	
Cost Effectiveness and Procedural Efficiency	☒ The organization maximizes the reach and quality of its educational services while maintaining minimal operational costs	☐ The organization does not demonstrate cost effectiveness or procedural efficiency in its use of POPS funds	Proactive Budgeting: Utah Opera finalizes their budgets nearly two fiscal years in advance, ensuring the Education Department can diligently stay within the approved budget. Exceeding Funding Matches: They secure leveraged funding that goes well beyond the state-required 1-to-1 match. Thanks to close collaboration between their Education department, Development department, and CFO, POPS funding actually only accounts for



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			36% of the total financial support used to provide their educational services. Strategic Touring: Utah Opera sends their Resident Artists on annual tours to specific regions throughout the state. These routes are carefully planned to maximize the number of schools served while limiting repetitive travel and reducing expenses. Reusing Assets: Because Utah Opera offers long-standing in-school programs (like <i>Who Wants to Be an Opera Star?</i> and <i>Opera Up Close</i>), they are able to reuse sets and costumes across multiple years, greatly extending the value of those initial investments. In-House Production: As a fully producing organization, they utilize their own in-house Scenic and Costume departments, which significantly reduces the cost of producing any required physical elements. Digital Resources: They maintain a library of free digital educational resources (developed during the pandemic with support from POPS and UEN) that remain easily accessible to students and teachers at all times to support core standard objectives.
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Peer Review: POPS Peer Reviews			
<u>Date:</u>	<u>Program Observed:</u>	<u>Links to Provided Education Materials:</u>	<u>Peer Review Observation Notes/Photos:</u>
5/19/2026 at At Eastwood Elementary	Who Wants to be an Opera Star!	<i>Opera Up Close</i> recording: https://www.youtube.com/watch?v=sIkrGrCzEKM <i>Opera Up Close</i> teacher materials: https://utahopera.org/education/teachers/teacher-materials-to-accompany-opera-up-close/ Teacher Materials to accompany "Who Wants to Be an Opera Star?" - Utah Opera	"Who wants to be an Opera Star" was a complete surprise - it was playful, engaging, and completely FUN. It gamified Opera and students were completely locked in on the "competition" and their favorite Opera star. This elementary-specific program has been in operation for 21 years. There was significant inclusion of Opera terminology and technique that was demonstrated to students by the different contestants. I especially enjoyed the audience cues/signs from the accompanist - every single performer engaged with the audience and it helped greatly with student audience management.
Peer Feedback			
<u>Peer-Identified Opportunities for Improvement:</u>	<u>Positive Peer Feedback:</u>	<u>Implementation Plans:</u>	



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Who Wants to Be an Opera Star?

Reviewers suggested waiting a moment longer after applause before resuming the presentation so the performers could be heard; Utah Opera is addressing this by scripting transitional banter into the show.

Another fun suggestion was to speak a phrase and then sing it operatically to help students identify the difference; the team loves this idea and is investigating where to incorporate it.

Finally, some students couldn't see a horse prop, so Utah Opera plans to work with their scenes director next season to improve staging and visibility.

Opera Up Close

Reviewers recommended strengthening student engagement before, during, and after the presentation. In response, Utah Opera plans to develop stronger pre-presentation materials, prompt students on what to listen for during excerpts, and add QR codes for post-presentation materials. To improve aural comprehension (projection, enunciation, and pacing), they will implement ongoing coaching during

Who Wants to Be an Opera Star?

Reviewers praised the presenters for keeping the performance fun while showcasing their incredible talent. The facilitators were highlighted as being particularly adept at navigating the chatter and energy of an assembly-sized crowd. The program was also commended for providing a wonderful demonstration of "healthy" and fair competition that students could easily relate to other areas of their lives, such as sports or the classroom.

Opera Up Close

The presenters were described as talented, authentic, confident, inspiring, and approachable. Reviewers loved the vast amount of information covered (such as voice types, historical context, and the collaborative "Gesamtkunstwerk" elements like costumes, makeup, and scenery) while keeping the art form relevant with relatable examples.

Overall student engagement was high, and the provided teacher materials were well-organized.

Enhancing Performance Delivery and Accessibility:

Utah Opera is focusing on improving how their presenters deliver content and how the audience experiences it physically and aurally. This includes scripting better transitional banter to manage audience applause and noise. They are also providing ongoing coaching to their presenters to improve projection, enunciation, and pacing. Additionally, they plan to work with their scenes director to adjust staging so that all props and visual jokes are easily visible to the entire audience.

Strengthening the Student Engagement Arc:

The education team is working to create a more robust engagement experience before, during, and after their performances. To achieve this, they plan to develop stronger pre-presentation materials (such as listening rubrics), prompt students with specific things to listen for right before musical excerpts are played, and



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onboarding. They also plan to partner with their technical team to add more interactive props and costumes, and they will reframe the current section on auditions to focus more broadly on performance anxiety		implement QR codes for post-presentation materials so teachers can easily revisit what students learned. Refining Content and Interactive Elements: Utah Opera is actively looking for ways to make the content more relatable, interactive, and visually engaging. They plan to partner with their technical team to incorporate more physical production elements, such as props and costumes, into the presentations. They are also exploring new ways to demonstrate vocal techniques, such as directly comparing spoken text to classically sung text. Finally, they are reframing certain segments of their presentations—such as shifting a discussion about auditions into a broader, more relatable conversation about performance anxiety.
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Compliance Resources -  Educational Services Compliance Resources.pdf		
Criteria	Met	Not Met
Checked assurances in Utah Grants related to Compliance Resources and is in compliance with Utah education laws	☒ Checked assurances, no outstanding compliance issues	☐ Did not check assurances or has outstanding noncompliance to Utah education laws

<u>Overall Program Summary Evaluation:</u>	<u>Staff Recommendation:</u>
☒ All criteria are "Met" ☐ Majority of criteria are "Met" ☐ Majority of criteria are "Not Met"	☒ Continue Participation ☐ Continue Participation with Stipulations (Specify Stipulations) ☐ Recommend Conditional Continued Participation Pending Corrective Actions (Specify Actions and Timeline) ☐ Recommend Discontinuation of Participation
<u>Summary:</u>	
Utah Opera has successfully met all POPS evaluation criteria. Utah Opera provides high-caliber, engaging professional arts experiences to students across the state through their Resident Artist program, which brings highly trained musicians directly into schools. Peer reviewers consistently	



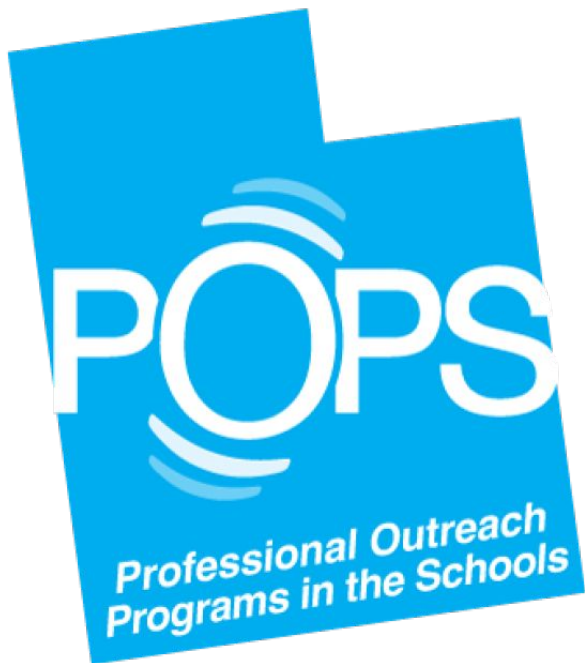
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noted that the performers are incredibly talented, authentic, confident, and approachable, successfully making a traditionally grand art form relatable and fun for students. Reviewers specifically praised the presenters' ability to navigate the high energy of large school assemblies and effectively highlight the collaborative nature of theater.

Utah Opera's dedication to accessibility and integrated learning makes them a vital educational partner. They actively connect opera to other core subjects—such as linking their original K-6 *Music! Words! Opera!* productions to Utah's Health standards. They also provide specialized, equitable opportunities like the *Access to Music* concert for students and families with sensory sensitivities.

POPS Four Year Program Reviews



August 7th, 2026
Standards and Assessment
Committee

Presented by K-12 Fine Arts
Specialist
Liz Bunker

POPS

Ruled by [R277-444](#), the Professional Outreach Programs in the Schools (POPS) provides free, high-quality and standards-aligned arts educational services to Utah public school students and teachers to connect schools directly with professional artists and performers.



**PROFESSIONAL
OUTREACH
PROGRAMS IN
THE SCHOOLS**

POPS Requirements

To join POPS, arts organizations must be a 501c3, have an existing arts outreach program, survive a rigorous three-to-five year vetting process, and be approved by the legislature - see [How to Join POPS](#). Once a member, groups must:

- ★ Raise at least a 1-to-1 match for state funding
- ★ Ensure offerings align to Utah's arts core standards
- ★ Offer every public school in Utah POPS programming on a three year cycle
- ★ Develop high quality services including: in-depth instructional workshops, demonstrations, presentations, performances, residencies, tours, exhibits, teacher professional developments, side-by-side mentoring, hands-on activities, virtual offerings, assemblies, or field trips



POPS in SY26



- ★ POPS successfully provided over 530K arts services to students
- ★ Every single district LEA in Utah hosted a POPS group
- ★ 87% of all charter schools engaged with at least one POPS group
- ★ The POPS legislative allocation is \$6,120,000 - POPS (as a whole) went well over the match, investing \$10,197,000 into their K-12 programs

Four Year Review

Per [R277-444](#), “At least once every four years, the Superintendent shall review and evaluate all organizations' participation in the POPS program, and report to the Board the results of the review and evaluation, and make a recommendation to the Board regarding an organization's continued participation in the program”.

The groups up for review this cycle are NEHMA, Plan-B, UMOCA, Utah Opera.



Program Evaluation Rubric

The rubric evaluates an organization's compliance across four main categories:

- ★ **Educational Service Plan:** Reviews whether academic offerings align with Fine Arts Core Standards and ensures equitable statewide service delivery (e.g., providing services to all Utah public schools at least once in a three-year cycle).
- ★ **Annual Report:** Checks for timely submission of reports, completeness of narrative requirements, and the presence of self-evaluation system.
- ★ **Financial Monitoring:** Monitors fiscal responsibility, specifically verifying:
 - 1-to-1 matching funds
 - Retention of at least 5 years of receipts
 - Compliance with allowable expenditure guidelines
 - Overall procedural efficiency and cost-effectiveness
- ★ **Peer Review:** Incorporates observations from onsite visits to assess the quality of instruction, student engagement, and the effectiveness of educational materials. This section also includes peer feedback and an implementation plan for any identified improvements.

Nora Eccles Harrison Museum of Art (NEHMA)



Quick Facts:

- ★ NEHMA has been a POPS member since 2019
- ★ SY26 Impact: Served 26,212 students and 5,621 teachers
- ★ Legislative Allocation: \$225,000

Summary: NEHMA has successfully met all POPS evaluation criteria, and demonstrates exceptional standards alignment programming, robust cross-curricular integration, and commitment to statewide accessibility. Through efficient operational practice, supported by leveraged funding from Utah State University and strategic service rotations, NEHMA effectively provides free, high-quality arts programming to students and teachers across Utah.

Plan-B Theatre



Quick Facts:

- ★ Plan-B has been a POPS member since 2019
- ★ SY26 Impact: Served 30,052 students and 2,213 teachers
- ★ Legislative Allocation: \$159,000

Summary: Plan-B Theatre has successfully met all POPS evaluation criteria, demonstrating exceptional cost-effectiveness by serving over 30,000 students (more than doubling their reach from last year) while maintaining high-quality, accessible educational programming aligned with core standards. Their peer review highlighted strong student engagement, effective use of local playwrights, and valuable instructional materials.

Utah Museum of Contemporary Art (UMOCA)

Quick Facts:

- ★ UMOCA has been a POPS member since 2019
- ★ SY26 Impact: Served 17,423 students and 789 teachers
- ★ Legislative Allocation: \$216,000



Summary: The Utah Museum of Contemporary Art (UMOCA) has successfully met all POPS evaluation criteria, demonstrating effective financial stewardship, innovative educational outreach through programs like the Art Truck, and a strong commitment to making conceptual contemporary art accessible to students across Utah.

Utah Opera



Quick Facts:

- ★ Utah Opera has been a POPS member since 1979
- ★ SY26 Impact: Served 35,395 students and 2,076 teachers
- ★ Legislative Allocation: \$449,000

Summary: Utah Opera has successfully met all POPS evaluation criteria, providing high-caliber, engaging professional arts experiences to students across the state through their Resident Artist program. Peer reviewers consistently praised the performers for being talented, authentic, and approachable, noting their ability to make opera relatable and fun for students while effectively managing large assembly crowds.

POPS Compliance

POPS groups use the [SY26 Compliance Resource Document](#) (developed in conjunction with USBE's AAG) and annually assure to be in compliance with R277-444 and applicable K-12 Education laws.

Concerns about POPS programming should be directed to USBE's [Internal Audit](#) 'Report a Concern Form' or send an email directly to the audit@schools.utah.gov. For each concern received, the Internal Audit Department conducts a high-level screening under R277-123 to consider the individual or entity best situated to review the concern and take necessary action.

Thank you

POPS turns 80 this year! This milestone represents decades of access to high quality, standards-aligned arts education outreach that's impacted millions of Utahns (particularly rural communities) and tens of millions of public and private dollars invested into arts education!



**PROFESSIONAL
OUTREACH
PROGRAMS IN
THE SCHOOLS**

UTAH STATE BOARD OF EDUCATION

Subject:

INFORMATION: AI in Education

Agenda item type:

Information Item

Recommended Action:**Purpose of Memo:**

Recommended by leadership

Background:

The Committee understood that this is a quickly changing area of education and asked that staff keep this topic on the Standards and Assessment Committee as a quarterly agenda item for the foreseeable future.

Contact:

Name:	Matt Winters	Katy Challis
Title:	AI Education Specialist	Director of Privacy
Phone:	801-538-7518	801-538-7894
Email:	matt.winters@schools.utah.gov	Katy.Challis@schools.utah.gov

Attachments:

1. AI Board Backup August 2026 Updated

1. General AI in Education Updates

- a. OpenAI is hosting an educator event in Davis on August 7th from 9-4. The event is open to all educators and is designed to show the best emerging practices with AI. More information can be found here: [Link](#). Multiple Utah districts are working on signing a data privacy agreement with OpenAI.
- b. UEN is coordinating with the Center for High-Performance Computing at the University of Utah around Redtail, their new supercomputer, to allow districts and classrooms access to its compute power to train models, create secure applications, and give students in AI build classrooms access to best-in-class AI tools. Redtail went live in early July, and it will be a few months before we see access for Utah schools.
- c. Recent training programs with Google have provide deep support for teachers across the state:
 - i. Live virtual sessions have brought over 200 educators together
 - ii. Recordings of those sessions have a combined viewing of over 3000
 - iii. In person sessions at the University of Utah and URSA brough over 250 educators training

We are continuing training into the next few weeks with additional training proposed by Google's leadership team. [Link to training site with links.](#)

Date: August 7th, 2026

Draft: 1st

Contact Person and Email: Matthew Winters, matt.winters@schools.utah.gov

This draft is for consideration during the August 7th, 2026 - Standards and Assessment Meeting

UTAH STATE BOARD OF EDUCATION

Subject:

INFORMATION: Public Comment

Agenda item type:

Information Item

Recommended Action:

Information - no action.

Purpose of Memo:**Background:****Committee Meeting Public Comment**

The Utah State Board of Education (USBE) appreciates your interest in sharing your public comments at the monthly board meeting. Individuals who want to comment on a specific agenda item(s) during the committee meetings, please get in touch with Cammy Wilcox, cammy.wilcox@schools.utah.gov

You are welcome to send written comments to the Board at any time: board@schools.utah.gov. Please include the city where you live in your email because your recognized board member may choose to reply personally.

Public Comment Disclaimer

1. Public comments are limited to 2 minutes per person.
2. A comment can express simple support or dissent about regulatory action. However, a constructive-comment supported by evidence, data, and information is more likely to-influence regulatory decision-making.
3. Individuals should not use the public comment to complain about personnel issues or attack or defame an individual.
4. Speakers making a highly detailed or complex comment should also consider providing a written outline of their words to the Board.
5. Please remember that children may hear your comments. Be thoughtful and professional.
6. Keep your comments appropriate for a general audience. If you have material with explicit language/content, submit such material in writing to the Board at publiccomments@schools.utah.gov

Standing Committee Meetings

Individuals who want to comment on a specific agenda item(s) during a committee meeting, please get in touch with the following people:

Cammy Wilcox

Finance Committee | cammy.wilcox@schools.utah.gov

Andrea Curtin

Standards and Assessment Committee | andrea.curtin@schools.utah.gov [\(External Web Content\)](#)

Vanessa Barnes

Law and Licensing Committee | vanessa.barnes@schools.utah.gov ([External Web Content](#))

Contact:

Attachments:

None

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: R277-113, Local Education Agency (LEA) Fiscal and Auditing Policies (Continuation & Amendment)

Agenda item type:

Action Item

Recommended Action:

That the Committee continue and approve R277-113, Local Education Agency (LEA) Fiscal and Auditing Policies, Draft 1, on first reading and forward to the Board for continuation and approval on second and final reading.

Purpose of Memo:

5-year review

Background:

R277-113 is soon approaching its five-year review. Staff recommends continuation of the rule.

Staff will present R277-113, Local Education Agency (LEA) Fiscal and Auditing Policies, Draft 1, for consideration and approval.

Authorizing, and Implemented or Interpreted Law: [Art X, Sec 3](#); [53E-3-401](#)(4); [53E-3-501](#)(1)(e)

Contact:

Name: Elisse Newey
Title: Deputy Superintendent of Policy
Phone: 801-538-7764
Email: Elisse.newey@schools.utah.gov

Debbie Davis
Chief Audit Executive
801-538-7639
debbie.davis@schools.utah.gov

Attachments:

1. R277-113 - Draft 1 - August 2026 Committee
2. R277-113 Reporting Burden and Fiscal Impact Estimate Form

R277. Education, Administration.

R277-113. LEA Fiscal and Auditing Policies.

R277-113-1. Authority^[,] and Purpose^[,] ~~and Oversight Category~~^[,].

(1) This rule is authorized by:

(a) Utah Constitution Article X, Section 3, which vests general control and supervision over public education in the Board;

(b) Subsection 53E-3-401(4), which allows the Board to make rules to execute the Board's duties and responsibilities under the Utah Constitution and state law;

(c) Subsection 53E-3-501(1)(e)(i), which directs the Board to establish rules and minimum standards for school productivity and cost effectiveness measures;

(d) Subsection 53E-3-501(1)(e)(iv), which allows the Board to adopt rules regarding financial, statistical, and student accounting requirements;

(e) Section 53E-3-602, which allows the Board to approve auditing standards for LEA governing boards;

(f) Section 53E-3-603, which requires the Board to verify accounting procedures of LEA governing boards for determining the allocation of Uniform School Funds;

(g) Section 53E-5-202, which directs the Board to adopt rules to implement a statewide accountability system;

(h) Subsection 53G-5-404(4), which requires charter schools to make the same annual reports required of other public schools, including an annual financial audit report;

(i) Subsection 53F-2-209(2), which requires the Board to make rules for flexible use of restricted funds; and

(j) ESSA, which requires states to revise and redesign school accountability systems.

(2) The purpose of this rule is to:

(a) require LEAs to formally adopt and implement policies regarding the management and use of public funds;

(b) provide minimum standards, procedures, and definitions for LEA policies;

(c) direct that LEAs make policies, procedures, and training materials available to the public and readily accessible on LEA or public school websites, to the extent of resources available;

(d) require LEAs to train employees in:

(i) appropriate financial practices;

(ii) necessary accounting procedures; and

(iii) ethical financial practices;

(e) specify uniform budgeting, accounting, and auditing procedures for LEAs consistent with GAAP, GAAS, and GAGAS; and

(f) establish reporting and accounting requirements for LEAs to enable the Board to comply with ESSA.

~~[(3) This Rule R277-113 is categorized as Category 3 as described in Rule R277-111.]~~

R277-113-2. Definitions.

(1) "Administration" means:

(a) an LEA superintendent or director;

(b) a deputy or associate superintendent or director;

(c) a business administrator or manager; or

(d) another LEA educational administrator, designated staff, or a designated educational service provider.

(2) "Arm's length transaction" means a transaction between two unrelated, independent, and unaffiliated parties or a transaction between two parties acting in their own self interest that is conducted as if the parties were strangers so that no conflict of interest exists.

(3) "Cash" or "cash receipts" means cash, checks, credit cards, electronic payments via a website or a mobile payment application, or other items used for payment.

(4) "Exclusive contract or arrangement" means an agreement requiring a buyer to purchase or exchange needed goods or services from one seller.

(5) "GAAP" means Generally Accepted Accounting Principles or a common framework of accounting rules and standards for financial reporting promulgated by GASB.

(6) "GAAS" means Generally Accepted Auditing Standards or a set of auditing standards and guidelines promulgated by the Auditing Standards Board of the American Institute of Certified Public Accountants.

(7) "GAGAS" means Generally Accepted Government Auditing Standards or a set of auditing standards and guidelines promulgated by the Government Accountability Office.

(8) "GASB" means the Governmental Accounting Standards Board whose purpose is to establish GAAP for state and local governments within the United States.

(9) "Internal controls" means a process, implemented by an entity's governing body, administration, or other personnel, designed to:

(a) provide reasonable assurance regarding the achievement of objectives in the following categories:

(i) effectiveness and efficiency of operations;

(ii) reliability of reporting for internal and external use; and

(iii) compliance with applicable laws and regulations;

(b) provide reasonable assurance regarding the achievement of the following objectives over state and federal awards:

(i) proper recording and accounting for transactions, to:

(A) permit the preparation of reliable financial statements and state and federal reports;

(B) maintain accountability over assets; and

(C) demonstrate compliance with state and federal statutes, regulations, and the terms and conditions of state and federal awards; and

(ii) execution of transactions in compliance with:

(A) state and federal statutes and regulations; and
(B) the terms and conditions of state or federal awards; and
(c) safeguard funds, property, and other against loss from unauthorized use or disposition.

(10) "Non-operating LEA" means an LEA that has not received minimum school program funds or federal funds and is not providing educational services during a fiscal year, such as an LEA in a start-up period.

(11) "N-size" means the minimum size necessary to disclose or display data to ensure maximum student group visibility while protecting student privacy.

(12) "Operating LEA" means an LEA that has received state minimum school program funds or federal funds and is providing educational services during a fiscal year.

(13)(a) "Provided, sponsored, or supported by a school" has the same meaning as defined in Section R277-407-2.

(b) "Provided, sponsored, or supported by a school" does not apply to non-curricular clubs specifically authorized and meeting the requirements of Sections 53G-7-704 through 53G-7-707.

(14) "Public funds" has the same meaning as that terms is defined in Subsection 51-7-3(26).

(15) "Title IX" refers to that portion of the United States Education Amendments of 1972 codified as 20 U.S.C. 1681 through 20 U.S.C. 1688.

(16) "Utah Public Officers' and Employees' Ethics Act," means Title 67, Chapter 16, which provides standards of conduct for officers and employees of the state of Utah and its political subdivisions in areas where there are actual or potential conflicts of interest between public duties and private interests.

R277-113-3. Superintendent and the Internal Audit Department Responsibilities.

(1) The Superintendent shall provide training, informational materials, and model policies for use by LEAs in developing LEA and public school-specific financial policies.

(2) The Superintendent shall provide online training and resources for LEAs regarding the use and management of public funds and ethical practices for licensed Utah educators who manage, control, participate in fundraising, or expend public funds.

(3) ~~[The Superintendent]~~ The Internal Audit Department shall provide training and informational materials for use by LEA governing boards in establishing their audit committees and internal audit programs in compliance with Section 53G-7-402.

(4) The Superintendent shall provide and establish a cycle for state review of LEA fiscal policies and standards.

(5) The Superintendent shall work with and provide information upon request to the Utah State Auditor's Office, the Legislative Fiscal ~~[Auditors]~~ Analysts, the Office of the Legislative Auditor General, and other state agencies with the right to information from the Board.

R277-113-4. LEA Audit Responsibilities.

(1) The presiding officer of an LEA governing board shall ensure that the members of the governing board and audit committee are provided with training on the requirements of Title 53G, Chapter 7, Part 4, Internal Audits, and this Section R277-113-4 as part of the member on-boarding process.

(2) The training described in Subsection (1) shall:

(a) comply with Title 63G, Chapter 22, State Training and Certification Requirements; and

(b) use the online training and informational materials provided by the Superintendent in accordance with Subsection R277-113-3(3).

(3) An LEA governing board shall:

(a) designate board members to serve on an audit committee, consistent with Subsection 53G-7-401(1); and

(b) maintain the following information on the LEA's website:

(i) names of the governing board members who serve on the audit committee;

and

145 (ii) if required by Subsection 53G-7-402(2);

146 (A) the name and contact information of the internal audit director; and

147 (B) a copy of the LEA's annual audit plan.

148 (4) An LEA audit committee shall:

149 (a) ensure the LEA obtains all audits, agreed-upon procedures, engagements,
150 and financial reports required by Section 51-2a-201 and Subsection 53G-5-404(4);

151 (b) provide an independent forum for internal auditors, internal audit contractors,
152 and other regulatory bodies to report findings of fraud, waste, abuse, non-compliance,
153 or control weaknesses, particularly if LEA administration is involved;

154 (c) ensure that corrective action on findings, concerns, issues and exceptions
155 reported by independent external auditors, internal auditors, or other regulatory bodies
156 are resolved in a timely manner by LEA administration;

157 (d) present, as appropriate, information and reports from the audit committee's
158 meetings to the LEA board; and

159 (e) receive, as appropriate, reports of reviews, monitoring, or investigations
160 conducted by LEA administration and ensure appropriate corrective action is taken in a
161 timely manner.

162 (5) With regards to engagements completed by an independent external auditor,
163 an LEA audit committee shall:

164 (a) manage the audit procurement and quality process in compliance with Title
165 63G, Chapter 6a, State Procurement Code and Rule R123-5;

166 (b) ensure that the independent external auditor has access to directly
167 communicate with the audit committee;

168 (c) review disagreements between independent external auditors and LEA
169 administration;

170 (d) consider LEA responses to audits or agreed-upon procedures; and

171 (e) determine the scope and objectives of other non-audit services, as
172 necessary.

173 (6) An LEA audit committee shall if required by Section 53G-7-402:

- 174 (a) establish an internal audit program that provides internal audit services for
175 the programs administered by the LEA;
- 176 (b) advise the LEA board in the appointment of an audit director or in contracting
177 for internal audit services in accordance with Subsection 53G-7-402(3);
- 178 (c) conduct or advise the LEA board in an annual evaluation of the internal audit
179 director or contractors providing internal audit services;
- 180 (d) prioritize the internal audit plan based on risk;
- 181 (e) receive regular updates on the internal audit plan and internal audit project
182 progress; and
- 183 (f) receive final internal audit reports from internal auditors or contractors
184 providing internal audit services.

185

186 **R277-113-5. LEA Fiscal Responsibilities and Required Fiscal Policies.**

- 187 (1) An LEA shall review the LEA's fiscal policies and procedures regularly.
- 188 (2) An LEA shall develop a plan for annual training of LEA and public school
189 employees on policies and procedures enacted by the LEA specific to job function.
- 190 (3) LEA fiscal policies and procedures shall be available at each LEA main
191 office, at individual public schools, and be publicly available on the LEA's website.
- 192 (4) LEA fiscal policies, procedures, and training may have different components,
193 specificity, and levels of complexity for public elementary and secondary schools.
- 194 (5) An LEA may have one or more policies to satisfy the minimum requirements
195 of this Rule R277-113.
- 196 (6) An LEA fiscal policy may reference specific training manuals or other
197 resources that provide detailed descriptions of business practices which are too lengthy
198 or detailed to include in the LEA policy.
- 199 (7) A public education foundation established by an LEA shall follow the
200 requirements set forth in Section 53E-3-403.
- 201 (8)(a) An LEA shall ensure that the LEA's written fiscal policies and procedures
202 address applicable state and federal statutes and regulations.

(b) The requirements set forth in this Section R277-113-5 are minimum requirements.

(c) An LEA may include other related items, provide LEA specific policy and guidance, and set policies that are more restrictive and inclusive than the minimum provisions established by Board rule.

(9) LEA fiscal policies shall include the following:

(a) a program accounting policy that establishes internal controls and procedures to record program revenues and expenditures in accordance with:

(i) GAAP; and

(ii) the school fee provisions in Section R277-407-12;

(b) a program accounting policy that:

(i) accurately reflects the use of funds for allowable costs and activities;

(ii) requires that transactions be recorded when they occur;

(iii) allows adjusting journal entries during the year and at the end of the year, in accordance with GAAP; and

(iv) requires that initial transactions, and adjusting entries if applicable, be recorded in the proper program, utilizing the following codes as established by the Board approved chart of accounts:

(A) fund;

(B) function;

(C) program;

(D) location; and

(E) object or revenue code, as applicable;

(c) a cash handling policy, which shall address cash receipts, including cash, checks, credit cards, electronic payments via a website or a mobile payment application, and other items used for payment, collected at the LEA and individual public schools and shall include:

(i) establishment of internal controls and procedures over the collection, deposit, and reconciliation of cash receipts received; and

- 232 (ii) compliance with Subsection 51-4-2(2) regarding deposits.
- 233 (d) an expenditure policy, which shall address expenditures made by the LEA
- 234 and individual public schools and shall include:
- 235 (i) establishment of internal controls and procedures over the initiation, approval
- 236 and monitoring of expenditures, including:
- 237 (A) credit, debit, or purchase card transactions;
- 238 (B) employee reimbursements;
- 239 (C) travel; and
- 240 (D) payroll;
- 241 (ii) directives regarding the appropriate use of the LEA's tax exempt status
- 242 number;
- 243 (iii) compliance with Section 63G-6a-1204 regarding length of multi-year
- 244 contracts;
- 245 (iv) compliance with:
- 246 (A) Title 63G, Chapter 6a, Utah Procurement Code;
- 247 (B) Board rule regarding construction and improvements; and
- 248 (C) federal Title IX requirements, found in 20 U.S.C. 1681, et seq.;
- 249 (v) requirements for LEA contracts, including:
- 250 (A) inclusion of specific scope of work language;
- 251 (B) inclusion of federal requirements;
- 252 (C) inclusion of language regarding data privacy and use, where appropriate;
- 253 and
- 254 (D) legal review before LEA approval; and
- 255 (vi) procedures and documentation maintained by the LEA if the LEA chooses to
- 256 enter into exclusive contracts or arrangements consistent with state procurement law
- 257 and the LEA procurement policy; and
- 258 (vii) procedures for determining allowability of costs in accordance with relevant
- 259 regulations and terms and conditions of awards;
- 260 (e) a fundraising policy that:

- 261 (i) establishes procedures for LEA and public school fundraising in general;
- 262 (ii) establishes an approval process for fundraising activities for school
- 263 sponsored activities;
- 264 (iii) provides for compliance with the requirements of Rule R277-408; and
- 265 (iv) includes:
 - 266 (A) specific designation of employees by title or job description who are
 - 267 authorized to approve fundraising and school sponsored fundraising activities;
 - 268 (B) establishment of internal controls and procedures over the approval of
 - 269 fundraising and school sponsored activities and compliance with associated cash
 - 270 handling and expenditure policies;
 - 271 (C) directives regarding the appropriate use of the LEA's tax exempt status
 - 272 number and issuance of charitable donation written disclosure in accordance with IRS
 - 273 regulations;
 - 274 (D) procedures governing LEA or public school employee interaction with
 - 275 parents, donors, and organizations doing fundraisers not provided, supported, or
 - 276 sponsored, by a school or LEA;
 - 277 (E) disclosure requirements for LEA and public school employees approving,
 - 278 managing, or overseeing fundraising activities, who also have a financial or controlling
 - 279 interest or access to bank accounts in the fundraising organization or company;
 - 280 (F) provisions establishing compliance with:
 - 281 (I) Utah Constitution, Article X, Section 2, establishing a free public education
 - 282 system;
 - 283 (II) Rule R277-408; and
 - 284 (III) federal Title IX requirements, found in 20 U.S.C. 1681, et seq.
 - 285 (v) may include procedures governing:
 - 286 (A) student participation and incentives offered to students;
 - 287 (B) allowable types of individual or group fundraising activities; and
 - 288 (C) participation in school sponsored activities by volunteer or outside
 - 289 organizations;

- (f) an LEA donation and gift policy that includes:
- (i) an acceptance and approval process for:
 - (A) monetary donations;
 - (B) donations and gifts with donor restrictions;
 - (C) donations of gifts, goods, materials, or equipment; and
 - (D) donation of funds or items designated for construction or improvements of facilities;
 - (ii) establishment of internal controls and procedures over the acceptance and approval of donations and gifts and compliance with associated cash handling and expenditure policies;
 - (iii) directives regarding the appropriate use of the LEA's tax exempt status number, and issuance of charitable donation written disclosure in accordance with IRS regulations;
 - (iv) procedures regarding the objective valuation of donations or gifts if advertising or other services are offered to the donor in exchange for a donation or gift;
 - (v) procedures governing LEA or public school employee conduct with parents, donors, and nonschool sponsored organizations;
 - (vi) procedures establishing provisions for direct donations or gifts to the LEA or LEA programs, individual public school or public school programs;
 - (vii) provisions restricting donations from being directed at specific LEA employees, individual students, vendors, or brand name goods or services;
 - (viii) compliance with:
 - (A) Title 63G, Chapter 6a, Utah Procurement Code;
 - (B) state law and Board rule regarding construction and improvements;
 - (C) IRS regulations and tax deductible directives; and
 - (D) Title IX;
 - (ix) procedures for:
 - (A) accepting donations and gifts through an LEA's legally organized foundation, if applicable;

- 319 (B) recognition of donors; or
- 320 (C) granting naming rights; and
- 321 (g) an LEA Financial Reporting policy, which shall include the following:
- 322 (i) a requirement that the LEA shall ensure external audits of LEA financial
- 323 reporting, compliance, and performance, in accordance with GAAS and GAGAS;
- 324 (ii)(A) a requirement that the LEA shall provide financial reporting in a manner
- 325 consistent with the basis of accounting as required by GAAP, as applicable to the entity;
- 326 and
- 327 (B) a requirement that the basis of accounting will be GASB; and
- 328 (iii) a requirement that the LEA shall provide data and information consistent with
- 329 budgeting, accounting, including the uniform chart of accounts for LEAs, and auditing
- 330 standards for Utah LEAs provided online annually by the Superintendent.
- 331 (10) The Superintendent shall maintain a School Finance website with
- 332 applicable Utah statutes, Board rules, and uniform rules for:
- 333 (a) budgeting;
- 334 (b) financial accounting, including a chart of accounts required for an LEA;
- 335 (c) student membership and attendance accounting;
- 336 (d) indirect costs and proration;
- 337 (e) financial audits;
- 338 (f) statistical audits; and
- 339 (g) compliance and performance audits.

340

341 **R277-113-6. LEA Governing Board Fiscal Responsibilities.**

- 342 An LEA governing board shall have the following responsibilities:
- 343 (1) approve written fiscal policies and procedures required by Section R277-113-
- 344 5;
- 345 (2) ensure, considering guidance in "Standards for Internal Control in the
- 346 Federal Government," issued by the Comptroller General of the United States or the
- 347 "Internal Control Integrated Framework," issued by the Committee of Sponsoring

Organizations of the Treadway Commission, that LEA administration establish, document, and maintain an effective internal control system for the LEA;

(3) develop a process to regularly discuss and review LEA:

(a) budget and financial reporting practices;

(b) financial statements and annual financial and program reports;

(c) financial position;

(d) expenditure of restricted funds to ensure administration is complying with applicable laws, regulations, and award terms and conditions; and

(e) systems and software applications for compliance with financial and student privacy laws;

(4) receive the results of required annual audits from the external auditor in accordance with Section R123-5-5;

(5) oversee procurement processes in compliance with Title 63G, Chapter 6a, Utah Procurement Code, and Rule R277-115, including:

(a) reviewing the scope and objectives of LEA contracts or subawards with entities that provide business or educational services; and

(b) receiving reports regarding the compliance and performance of entities with contracts or subawards;

(6) ensure the procurement process for an external auditor is in compliance with Section R123-5-4; and

(7) ensure LEA administration implements sufficient internal controls over the functions of entities with contracts or subawards to perform services on behalf of the LEA.

R277-113-7. Reporting of School Level Expenditures.

(1) In accordance with ESSA, the Superintendent shall make public the per pupil expenditures of federal, state, and local funds, for each LEA and each school in the state.

(a) The Superintendent shall exclude expenditures that:

- 377 (i) are non-current;
- 378 (ii) do not reflect the day-to-day operations of an LEA or school;
- 379 (iii) do not contribute to k-12 education; or
- 380 (iv) are significant, unique expenditures that may skew data in certain years and
- 381 thwart year-to-year comparison.
- 382 (b) The Superintendent shall publish and make available a comprehensive list of
- 383 expenditures that are excluded from per pupil expenditure information.
- 384 (2) The Superintendent's school level report for each school shall include:
- 385 (a) average daily membership for the fiscal year covered by the report;
- 386 (b) an indicator if the school is:
- 387 (i) a Title I School; or
- 388 (ii) a Necessarily Existent Small School;
- 389 (c) grade levels served by each school;
- 390 (d) student demographics;
- 391 (e) expenditures recorded at the school level and central expenditures allocated
- 392 to each school by:
- 393 (i) federal program expenditures; and
- 394 (ii) state and local combined expenditures;
- 395 (f) calculated per pupil expenditures; and
- 396 (g) average teacher salary.
- 397 (3) The Superintendent may not report expenditure data for a school with an n-
- 398 size of less than 10.

399

400 **R277-113-8. LEA Accounting Requirements.**

- 401 (1) Each LEA shall:
- 402 (a) record revenues and expenditures in compliance with the Board approved
- 403 chart of accounts;
- 404 (b) record expenditures using school location codes that can be mapped to
- 405 official school location codes used in the Board system of record;

(c) record expenditures using approved district and school codes in the Board system of record;

(d) submit expenditures using location codes in the Utah Public Education Financial System;

(e) perform program accounting in accordance with GAAP and this rule; and

(f) ensure that fee and fee waiver accounting aligns with GASB34.

(2) Each LEA shall record and report the following expenditures for each school annually:

(a) salaries;

(b) benefits;

(c) supplies;

(d) contracted services; and

(e) equipment.

(3) If an LEA pays for contracted services that occur at the school level, the LEA shall record the payments to the contractors in the appropriate function and object codes established under Subsection (2) at the school level.

(4)(a) An LEA shall record centralized administrative costs to the administrative location code.

(b) The Superintendent shall allocate such costs to each school based on school enrollment.

(5) The Superintendent shall present one expenditure report for a school receiving more than one report card under Subsection R277-497-4(8).

(6) If an LEA reports expenditures in programs, the LEA shall report the expenditures to one or more schools.

(7) Each LEA shall request reimbursement for federal programs no less than semi-annually as funds are available.

(8) Each LEA shall submit an intent to fully expend or waive a federal award nine months before the end of the federal program grant award period.

R277-113-9. Activities Provided, Sponsored, or Supported by a School.

(1) An LEA or school shall comply with this Section R277-113-9 for all activities provided, sponsored, or supported by a school.

(2) An LEA shall ensure that revenues raised from or during activities provided, sponsored, or supported by a school are classified, recorded, and deposited as public funds in compliance with LEA cash handling, program accounting, and expenditure of funds policies as required by Section R277-113-5.

(3) An LEA shall:

(a) maintain records in sufficient detail to:

(i) track individual contributions and expenditures;

(ii) track overall financial outcomes; and

(iii) verify compliance with relevant regulations; and

(b) make records of activities available to parents, students, and donors, except as restricted by state or federal law;

(4) An LEA may establish LEA specific rules or policies:

(a) designating categories of activities or groups as provided, sponsored, or supported by the school; and

(b) regarding use of facilities or LEA resources.

(5) An LEA shall document their annual review of fundraising activities that support or subsidize LEA or public school-authorized clubs, activities, sports, classes, or programs to determine if the activities are provided, sponsored, or supported by a school.

(6)(a) An LEA may enter into contractual agreements to allow for fundraising and use of LEA facilities.

(b) An agreement under Subsection (6)(a) shall take into consideration the LEA's fiduciary responsibility for the management and use of public funds, resources, and assets.

(c) An LEA shall review an agreement under Subsection (6)(a) with the LEA's insurer or legal counsel to consider risk to the LEA.

(7) An LEA shall comply with this Subsection (7) for any activity not provided, sponsored, or supported by a school:

- (a) an LEA shall conduct transactions at arm's length;
- (b) an LEA may not co-mingle revenue and expenditures with public funds; and
- (c) a public school employee may only provide educational services outside of the employee's regular employment consistent with Rule R277-107.

R277-113-10. LEA Policies and Compliance with State and Federal Law.

(1) An LEA is responsible to ensure that its policies comply with the following:

- (a) Utah Constitution Article X, Section 3;
- (b) Title 63G, Chapter 6a, Utah Procurement Code;
- (c) Title 51, Chapter 4, Deposit of Funds Due State;
- (d) Title 67, Chapter 16, Utah Public Officers' and Employees' Ethics Act;
- (e) Family Educational Rights and Privacy Act, 20 U.S.C. 1232g;
- (f) Title 63G, Chapter 2, Government Records Access and Management Act;
- (g) Title 53G, Chapter 7, Part 5, Student Fees;
- (h) Title 53G, Chapter 7, Part 6, Textbook Fees;
- (i) Section 53E-3-403, Establishment of Public Education Foundations;
- (j) Title 53G, Chapter 7, Part 7, Student Clubs Act;
- (k) Title 51, Chapter 2a, Accounting Reports from Political Subdivisions, Interlocal Organizations, and Other Local Entities Act;
- (l) Additional state legal compliance guides for operating LEAs and non-operating LEAs as published by the office of the state Auditor;
- (m) Subsection 51-7-3(26), Definition of Public Funds;
- (n) Title 53G, Chapter 7, Part 4, Internal Audits;
- (o) Rule R277-407, School Fees;
- (p) Rule R277-107, Educational Services Outside of Educator's Regular Employment;
- (q) Rule R277-217, Utah Educator Standards;

- 493 (r) Rule R277-605, Coaching Standards and Athletic Clinics;
494 (s) Rule R123-5, Audit Requirements for Audits of Political Subdivisions and
495 Governmental Nonprofit Corporations; and
496 (t) 2 CFR. 200, Uniform Administrative Requirements, Cost Principles, and Audit
497 Requirements for Federal Awards (2020).

498 (2) An LEA shall include the following requirements of Title IX in LEA policies:

- 499 (a) Fundraising shall equitably benefit males and females;
500 (b) Males and females shall have reasonably equal access to facilities, fields,
501 and equipment;
502 (c) School sponsored activities shall be reasonably equal for males and females.
503

504 **R277-113-11. LEA Recordkeeping for Flexible Use of Restricted Funds.**

505 (1) An LEA may reallocate funds for flexible uses as described in Section 53F-2-
506 209.

507 (2) An LEA that makes flexible adjustments as described in Subsection (1) shall
508 report accounting transactions and adjust entries utilizing the Board approved chart of
509 accounts, including:

- 510 (a) a dedicated program code;
511 (b) dedicated other financing codes for program transfers of state restricted
512 funds; and
513 (c) expenditure details, if applicable.

514 (3) An LEA that makes flexible adjustments under this section shall ensure that
515 the LEA continues to meet:

- 516 (a) federal maintenance of effort requirements; and
517 (b) other state or federal requirements on restricted funding, including
518 requirements for program-specific effort, matching, and equity.

519 (4) The Superintendent shall publish online a list of eligible state restricted
520 programs meeting requirements of Section 53F-2-209 no later than May 30 of each
521 year.

522

523 **R277-113-12. Applicability to the Utah Schools for the Deaf and the Blind.**

524 The Utah Schools for the Deaf and the Blind shall comply with:

525 (1) Subsection R277-113-5(9)(f);

526 (2) Section R277-113-9;

527 (3) Section R277-113-10; and

528 (4) Section R277-113-11.

529

530 **KEY: school sponsored activities, public funds, fiscal policies and procedures,**
531 **audit committee**

532 **Date of Last Change: July 8, 2025**

533 **Notice of Continuation: September 9, 2021**

534 **Authorizing, and Implemented or Interpreted Law: Art X, Sec 3; 53E-3-401(4);**
535 **53E-3-501(1)(e)**

536

537

Utah State Board of Education

Reporting Burden and Fiscal Impact Estimate

R277-113 – LEA Fiscal and Auditing Policies (Amendment and Continuation)

1. Reporting Burden for LEAs

This rule change does not add any reports for LEAs.

2. Estimated Fiscal Impact on USBE

This rule change is not estimated to have fiscal impacts on USBE.

3. Estimated Fiscal Impact on LEAs

This rule change is not estimated to have fiscal impacts on LEAs.

Author: Sam Urie

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: R277-109, Legislative Reporting and Accountability (Continuation)

Agenda item type:

Action Item

Recommended Action:

That the Committee continue R277-109, Legislative Reporting and Accountability, on first reading and forward to the Board for continuation on second and final reading.

Purpose of Memo:

5-year review

Background:

R277-109 is soon approaching its five-year review. Staff recommends continuation of the rule.

Staff will present R277-109, Legislative Reporting and Accountability, Continuation, for consideration and approval.

Authorizing, and Implemented or Interpreted Law: [Art X Sec 3](#); [53E-3-501](#)(1); [53E-3-401](#)(2)(a); [53E-3-401](#)

Contact:

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Attachments:

1. R277-109 - Continuation - August 2026 Committee
2. R277-109 Reporting Burden and Fiscal Impact Estimate Form

R277. Education, Administration.

R277-109. Legislative Reporting and Accountability.

R277-109-1. Authority and Purpose.

(1) This rule is authorized by:

(a) Utah Constitution Article X, Section 3, which vests general control and supervision over public education in the Board;

(b) Subsection 53E-3-501(1), which directs the Board to establish rules and minimum standards for the public schools;

(c) Subsection 53E-3-401(2)(a), which gives the Board general control and supervision of the state's public education system for adoption and enforcement of rules;

(d) Subsection 53E-3-401(4), which allows the Board to make rules to execute the Board's duties and responsibilities under the Utah Constitution and state law, and allows the Board to interrupt disbursements of state aid to any district which fails to comply with rules adopted in accordance with Subsection 53E-3-401(8)(a).

(2) The purpose of this rule is to:

(a) require the Superintendent to create data collection plans necessary as determined by the Superintendent to fulfill statutory or Board reporting requirements; and

(b) require LEAs to submit data upon request to the Superintendent.

(3) The rule provides that LEA participation in Minimum School Program funding is conditioned upon LEAs providing complete and accurate data and information to the Superintendent and the Board.

R277-109-2. Definitions.

(1) "Minimum school program funds" or "MSP funds" means the state and local funds appropriated for the Minimum School Program to support educational activities in all grades Kindergarten through 12th grade, including the Basic State-Supported School Program, Related to Basic Program, the State-Supported Voted and Board Leeway Levy Programs, and other programs or allocations appropriated by the Legislature in Title 53F, Chapter 2, Minimum School Program Act.

(2) "Statutory or Board reporting requirement" means a reporting requirement as described in:

- (a) the Utah Code or legislative intent as documented by legislative records; or
- (b) Board rule.

R277-109-3. Board Direction to Superintendent and LEA Appeal Process.

(1) The Superintendent shall, in consultation with LEAs, collect data and prepare data collection reports or plans, as the Board directs or as the Superintendent deems necessary, to fulfill statutory or Board reporting requirements.

(2) The Superintendent is authorized by the Board to assist LEAs to fulfill reporting requests and to complete accountability or reporting plans.

(3) The Superintendent may sanction an LEA, if necessary, if the LEA fails to provide required data or reports by withholding MSP funds due to the LEA's failure to provide complete and accurate data or reports as requested.

(4) The Superintendent shall provide adequate notice to LEAs of reporting requirements and procedures for providing data in requested formats.

(5) If an LEA does not comply with a data program request or requirement, the Superintendent shall provide adequate and timely notice to the LEA that data was not submitted accurately and completely and LEA has 30 days to respond to the Superintendent's request for data or a required data report.

(6) The Superintendent may impose sanctions for noncompliance up to and including the withholding of MSP funds directly related to the data collection or reporting requirement.

(7) The Superintendent may withhold the program funds related to the requested data report or reporting requirement beginning with the next MSP transfer or beginning with subsequent MSP transfers including MSP funding for a subsequent fiscal year.

(8) An LEA may appeal to the Board in writing the Superintendent's decision to withhold program funds within 10 calendar days.

(9) The Board shall respond to the LEA within 30 calendar days.

59 (10) The Board's response is the final administrative action.

60

61 **KEY: reporting, accountability**

62 **Date of Last Change: November 7, 2016**

63 **Notice of Continuation: September 9, 2021**

64 **Authorizing, and Implemented or Interpreted Law: Art X Sec 3; 53E-3-501(1); 53E-3-**
65 **401(2)(a); 53E-3-401**

66

67

Utah State Board of Education

Reporting Burden and Fiscal Impact Estimate

R277-109 – Legislative Reporting and Accountability (Continuation)

1. Reporting Burden for LEAs

This continuation does not add any reports for LEAs.

2. Estimated Fiscal Impact on USBE

This continuation is not estimated to have fiscal impacts on USBE.

3. Estimated Fiscal Impact on LEAs

This continuation is not estimated to have fiscal impacts on LEAs.

Author: Sam Urie

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: R277-712, Personalized, Competency-based Learning Grant Programs (Continuation & Repeal)

Agenda item type:

Action Item

Recommended Action:

That the Committee continue R277-712, Personalized, Competency-based Learning Grant Programs, and forward to the Board for approval.

That the Committee repeal R277-712, Personalized, Competency-based Learning Grant Programs, on first reading and recommend the Board repeal the rule on second and final reading.

Purpose of Memo:

5-year review

Background:

R277-712 is soon approaching its five-year review. Staff recommends repeal of the rule. The Office of Administrative Rules (OAR) procedures disfavor allowing the rule to expire. Accordingly, staff request a motion to continue and then a motion to repeal.

Staff will present R277-712, Personalized, Competency-based Learning Grant Programs, Continuation & Repeal, for consideration and approval.

Authorizing, and Implemented or Interpreted Law: [Art X Sec 3](#); [Title 53F, Chapter 5, Part 5](#); [53E-3-401](#)(4)

Contact:

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Attachments:

1. R277-712 - Continuation & Repeal - August 2026 Committee
2. R277-712 Reporting Burden and Fiscal Impact Estimate Form

~~[R277. Education, Administration.~~

~~R277-712. Personalized, Competency-based Learning Grant Programs.~~

~~R277-712-1. Authority and Purpose.~~

~~———— (1) This rule is authorized by:~~

~~———— (a) Utah Constitution Article X, Section 3, which vests general control and supervision over public education in the Board; and~~

~~———— (b) Section 53F-5-502, which requires the Board to:~~

~~———— (i) define outcome-based measures for each type of grant awarded to LEA's;~~

~~———— (ii) establish a grant application process;~~

~~———— (iii) establish a review committee; and~~

~~———— (iv) adopt metrics to analyze the quality of a grant application; and~~

~~———— (c) Subsection 53E-3-401(4), which allows the Board to make rules to execute the Board's duties and responsibilities under the Utah Constitution and state law.~~

~~———— (2) The purpose of this rule is to:~~

~~———— (a) define outcome-based measures for each type of grant awarded to LEA's;~~

~~———— (b) establish a grant application process;~~

~~———— (c) establish a review committee; and~~

~~———— (d) adopt metrics to analyze the quality of a grant application.~~

~~R277-712-2. Definitions.~~

~~———— (1) "Grant" means:~~

~~———— (a) a planning grant under Section 53F-5-503;~~

~~———— (b) an implementation grant under Section 53F-5-504; or~~

~~———— (c) an expansion grant under Section 53F-5-505.~~

~~———— (2) "Grant program" means the same as that term is defined in Section 53F-5-501.~~

~~———— (3) "Review committee" means the committee established by the Board in accordance with Subsection 53F-5-502(3)(c).~~

~~R277-712-3. Personalized Competency-based Learning Review Committee~~

~~Membership and Duties.~~

~~—— (1) The review committee shall include the following individuals:~~

~~—— (a) the Deputy Superintendent of Instructional Services or the Deputy's designee, who is a non-voting member of the review committee;~~

~~—— (b) one member who is an expert in blended learning;~~

~~—— (c) one member who is an expert in STEM education;~~

~~—— (d) one member who is an expert in assessment of student learning;~~

~~—— (e) one member who is a former school district Superintendent;~~

~~—— (f) one member who is a current school administrator;~~

~~—— (g) one member who is a current charter school administrator;~~

~~—— (h) one member who is a former LEA administrator;~~

~~—— (i) one member who is a current teacher;~~

~~—— (j) one member who is a former teacher; and~~

~~—— (k) one member who is a current school district superintendent.~~

~~—— (2) In addition to the committee members described in Subsection (1), the review committee may select additional grant application reviewers to assist the review committee with the work described in Subsection (3).~~

~~—— (3) The review committee shall:~~

~~—— (a) establish metrics to analyze the quality of a grant application;~~

~~—— (b) review an LEA's grant application to determine whether the grant application:~~

~~—— (i) meets the criteria described in applicable statute and rule; and~~

~~—— (ii) should be selected by the Board to receive a grant;~~

~~—— (c) make a recommendation to the Superintendent and the Board on which grant applications should be selected by the Board; and~~

~~—— (d) perform other duties as directed by:~~

~~—— (i) the Board; or~~

~~—— (ii) the Superintendent.~~

~~R277-712-4. Pre-grant Approval Requirements.~~

~~———— (1) Before an LEA submits a grant application to the review committee for approval by the Board, the LEA shall have at least two LEA representatives participate in the personalized, competency based learning grant application technical assistance training conducted by the Superintendent, including;~~

~~———— (a) the school district superintendent or charter school executive director; and~~

~~———— (b)(i) the LEA's curriculum director; or~~

~~———— (ii) the LEA's proposed personalized, competency-based learning program manager.~~

~~———— (2) A member of an LEA's local school board or charter school governing board and other staff identified by the applying LEA may also participate in the technical assistance training described in Subsection (1).~~

~~R277-712-5. Grant Application.~~

~~———— (1) An LEA may apply for a grant by submitting an application to the Superintendent.~~

~~———— (2) The Superintendent shall:~~

~~———— (a) develop a grant application for each phase of the grant program;~~

~~———— (b) set a deadline for the application to be submitted to the Superintendent; and~~

~~———— (c) make the grant application available to LEAs on the Board's website.~~

~~R277-712-6. Procedure and Requirements for Awarding a Grant.~~

~~———— (1) The review committee and the Superintendent shall make recommendations to the Board based on:~~

~~———— (a)(i) the criteria described in Subsection 53F-5-503(2) for a planning grant;~~

~~———— (ii) the criteria described in Subsection 53F-5-504(2) for an implementation grant; or~~

~~———— (iii) the criteria described in Subsection 53F-5-505(2) for an expansion grant;~~

~~—— (b) the LEA's proposed budget for the LEA's personalized, competency-based learning program; and~~

~~—— (c) the LEA's outcome-based measurements described in Subsection (2).~~

~~—— (2)(a) An LEA shall include outcome-based measurements as part of the LEA's personalized, competency-based learning program to measure the performance of the LEA's plan.~~

~~—— (b) The outcome-based measurements described in Subsection (2)(a) shall include at least one measurement of student growth and proficiency.~~

~~—— (c) The outcome-based measurements described in Subsection (2)(a) may include:~~

~~—— (i) parent and student satisfaction with the LEA's personalized, competency-based learning program;~~

~~—— (ii) cost savings;~~

~~—— (iii) an increase in the LEA's graduation rate;~~

~~—— (iv) number of credits earned by students through the personalized, competency-based learning program; and~~

~~—— (v) other quality program indicators as listed in Utah's Personalized Competency-Based Learning Education Framework.~~

~~—— (3) An LEA may be awarded each subsequent phase of the grant program only after:~~

~~—— (a) successful participation in the previous phase; and~~

~~—— (b) Board approval of the LEA's plan.~~

~~—— (4) If an LEA's grant application is denied by the Board:~~

~~—— (a) an LEA may submit a new grant application the next year following the first denial;~~

~~—— (b) an LEA may only submit a planning grant application the next year following a second denial and the LEA shall:~~

~~—— (i) request technical assistance from the Superintendent prior to re-applying; and~~

~~———— (ii) demonstrate increased understanding of personalized, competency-based
learning implementation upon re-application.~~

~~**KEY: personalized, competency-based learning, grant programs**~~

~~**Date of Last Change: November 8, 2021**~~

~~**Notice of Continuation: September 9, 2021**~~

~~**Authorizing, and Implemented or Interpreted Law: Art X Sec 3; Title 53F, Chapter
5, Part 5; 53E-3-401(4)]**~~

Utah State Board of Education

Reporting Burden and Fiscal Impact Estimate

R277-712 – Personalized, Competency-based Learning Grant Programs (Continuation and Repeal)

1. Reporting Burden for LEAs

This continuation and repeal does not create new reports for LEAs.

2. Estimated Fiscal Impact on USBE

This continuation and repeal is not estimated to have measurable fiscal impacts on USBE.

3. Estimated Fiscal Impact on LEAs

This continuation and repeal is not estimated to have fiscal impacts on LEAs.

Author: Sam Urie

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: R277-720, Reimbursement Program for Early Graduation from Competency-Schools (Continuation & Repeal)

Agenda item type:

Action Item

Recommended Action:

That the Committee continue R277-720, Reimbursement Program for Early Graduation from Competency-Schools, and forward to the Board for approval.

That the Committee repeal R277-720, Reimbursement Program for Early Graduation from Competency-Schools, on first reading and recommend the Board repeal the rule on second and final reading.

Purpose of Memo:

5-year review

Background:

R277-720 is soon approaching its five-year review. Staff recommends repeal of the rule. The Office of Administrative Rules (OAR) procedures disfavor allowing the rule to expire. Accordingly, staff request a motion to continue and then a motion to repeal.

Staff will present R277-720, Reimbursement Program for Early Graduation from Competency-Schools, Continuation, for consideration and approval.

Authorizing, and Implemented or Interpreted Law: [Art X Sec 3](#); [53E-3-401](#)(4); [53F-2-511](#)(1)(c)(ii); [53F-2-511](#)(6)

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Attachments:

1. R277-720 - Continuation & Repeal - August 2026 Committee
2. R277-720 Reporting Burden and Fiscal Impact Estimate Form

~~**[R277. Education, Administration.**~~

~~**R277-720. Reimbursement Program for Early Graduation from Personalized,
Competency-Based Learning Program.**~~

~~**R277-720-1. Authority and Purpose.**~~

~~—— (1) This rule is authorized by:~~

~~—— (a) Utah Constitution Article X, Section 3 which vests general control and
supervision over public education in the Board;~~

~~—— (b) Subsection 53E-3-401(4), which allows the Board to make rules to execute the
Board's duties and responsibilities under the Utah Constitution and state law;~~

~~—— (c) Subsection 53F-2-511(1)(c)(ii), which allows the Board to make rules to specify
additional criteria for an LEA to be eligible for a personalized, competency-based learning
early graduation reimbursement; and~~

~~—— (d) Subsection 53F-2-511(6), which allows the Board to make rules for the
administration of the Reimbursement Program for Early Graduation from Personalized,
Competency-Based Learning.~~

~~**R277-720-2. Definitions.**~~

~~—— (1) "Eligible LEA" means an LEA that:~~

~~—— (a) has demonstrated to the Board that the LEA or a school within the LEA
provides and facilitates personalized competency-based learning that is based on the core
principles described in Section 53F-5-502; and~~

~~—— (b) has an approved personalized, competency-based learning program that
includes:~~

~~—— (i) at least one outcome measure for each indicator level required by the
Superintendent;~~

~~—— (ii) outcome measures that are disaggregated by student subgroups where
possible; and~~

~~—— (iii) at least one outcome measure for student growth and proficiency.~~

~~—— (2) "Eligible student" means a student who:~~

~~—— (a) meets the requirements described in Subsection 53F-2-511(1)(d);~~

~~—— (b) has been flagged by an LEA as a personalized competency-based learning participant.~~

~~—— (3) "Program" means the Reimbursement Program for Early Graduation from Personalized, Competency-Based Learning described in Section 53F-2-511.~~

~~—— (4) "Review Committee" means the Personalized Competency-based Learning Review Committee created in Section R277-712-3.~~

~~R277-720-3. Personalized, Competency-Based Learning Designation.~~

~~—— (1) To receive a personalized, competency-based learning designation, an eligible LEA shall:~~

~~—— (a) submit an application in the form prescribed by the Superintendent to the review committee;~~

~~—— (b) submit the application in Subsection (1)(a) no later than April 1 of the school year prior to the school year in which the LEA intends to seek reimbursement; and~~

~~—— (c) have an approved personalized, competency-based learning plan pursuant to Rule R277-712.~~

~~—— (2) The review committee shall review each application and make recommendations to the Board based on the Board approved personalized, competency-based learning core principals and measures described in Rule R277-712.~~

~~—— (3) The Board shall approve or deny the recommendations made by the review committee in a timely manner.~~

~~—— (4) If approved, an eligible LEA's personalized, competency-based learning designation shall continue for three years, provided the school continues to implement a personalized, competency-based learning model.~~

~~—— (5) An eligible LEA may not retroactively use an approved personalized, competency-based learning designation for reimbursement of eligible students.~~

~~———— (6) An LEA may claim reimbursement for eligible students in the school year after establishing a personalized, competency-based learning designation and in subsequent years, as long as the designation continues.~~

~~R277-720-4. Early Graduation Reimbursement.~~

~~———— (1) An eligible LEA with a personalized, competency-based learning designation may seek reimbursement for an eligible student in October for membership generated by the eligible student in the previous school year.~~

~~———— (2) The reimbursement amount shall be calculated by the Superintendent in the following manner:~~

~~———— (a) the amount of weighted pupil unit lost due to early graduation for each eligible student shall be determined as described by Subsection 53F-2-511(5);~~

~~———— (b) the total amount of lost weighted pupil unit for each eligible student shall be used to establish an LEA aggregate total and a statewide aggregate total for all eligible students;~~

~~———— (c) if the statewide aggregate total is equal to or less than the total amount allocated for the program by the legislature, an eligible LEA shall be reimbursed the LEA aggregate total;~~

~~———— (d) if the statewide aggregate total exceeds the total amount allocated for the program by the legislature, an eligible LEA shall be reimbursed a prorated amount proportionate to the percentage that the LEA aggregate total is of the statewide aggregate total.~~

~~———— (3) An LEA shall not receive a reimbursement for an eligible student that exceeds the amount outlined in Subsection 53F-2-511(5)(a).~~

~~KEY: personalized, competency-based learning, reimbursements, early graduation~~

~~Date of Last Change: November 8, 2021~~

~~Notice of Continuation: September 9, 2021~~

85 ~~Authorizing, and Implemented or Interpreted Law: Art X Sec 3; 53E-3-401(4); 53F-2-~~
86 ~~511(1)(c)(ii); 53F-2-511(6)]~~
87
88

Utah State Board of Education

Reporting Burden and Fiscal Impact Estimate

R277-720- Reimbursement Program for Early Graduation from Personalized, Competency-Based Learning Program (Continuation and Repeal)

1. Reporting Burden for LEAs

This continuation and repeal does not create new reports for LEAs.

2. Estimated Fiscal Impact on USBE

This continuation and repeal is not estimated to have measurable fiscal impacts on USBE.

3. Estimated Fiscal Impact on LEAs

This continuation and repeal is not estimated to have fiscal impacts on LEAs.

Author: Sam Urie

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: Early Literacy Research Study

Agenda item type:

Action Item

Recommended Action:

The Committee recommends that the Utah State Board of Education approve funding this project using Federal Mineral Lease funds from their discretionary account.

Purpose of Memo:

Requested by 3 or more members of the board

Background:

We are requesting the potential approval of an early literacy research study to be funded through our Federal Mineral Release Funds. The funds would pay for family licenses to an app that trains parents on the Science of Reading along with providing activities for parents to do with Kindergarten and 1st grade students. The study would follow the Acadience scores of the students to see the impact of supporting parents.

This research study on early literacy directly advances the USBE Strategic Plan 2025 goals to Elevate Student Learning and Promote Educator Quality. By evaluating evidence-based reading instruction and classroom strategies, the study provides data to help more Utah students reach third-grade reading proficiency while equipping teachers with high-leverage instructional tools.

Additionally, the study supports the Board's duty of Oversight & Accountability by offering objective evidence on program effectiveness to guide state policy and funding decisions. It fulfills Board responsibilities under Article VII(5) of the USBE Bylaws by maintaining full transparency and ethical disclosure regarding all research partnerships and resources.

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Attachments:

1. A Utah Study of Family Literacy (USBE)

A Utah Study of Family Literacy

One-Year Research Plan — Kindergarten & First Grade

Rural, Title I, and Targeted-Assistance Schools

The Alma Street Foundation · in partnership with rinnalla · Independent evaluation by LXD Research

Executive Summary

Utah has committed that every child will read, and it has resourced schools to deliver. The lever it has barely pulled is the home. This plan proposes a rigorous, independently evaluated one-year study of whether equipping parents with evidence-based, personalized literacy support — delivered free through **rinnalla** — helps children arrive better prepared to read, measured in Utah's own Kindergarten and first-grade assessments.

The Alma Street Foundation funds and coordinates delivery; LXD Research independently designs, owns, and reports the study; and Utah's mineral-lease education-research fund would underwrite the independent research, family support, and free family access. The study concentrates on rural, mineral-impacted communities and on Title I and targeted-assistance schools — the families least able to purchase such support — and is designed to produce the level of evidence ESSA recognizes as “moderate,” usable by every Utah district regardless of the tools it adopts.

This request funds a single study year, October 2026 through October 2027, spanning the intervening summer. The design deliberately establishes the baseline and infrastructure a longitudinal extension would require, but no multi-year commitment is sought here.

Statement of Need

Utah's K–3 reading goal and the literacy requirements of SB 241 place real weight on early reading, and the State has funded schools to act on them. The home has not been resourced the same way. In keeping K–3 devices from going home (HB 273), Utah made a deliberate choice — and in doing so defined a “what do families do at home” space it has not yet filled. Decades of evidence point to the parent as one of the most powerful and least-supported contributors to early literacy; most families want to help their children read and were simply never shown how. That is a system-design problem, not a parenting problem.

Utah's own data give the study its urgency: educators are seeing alarming gaps in beginning-of-year reading readiness among first and second graders, and summer erodes hard-won gains at the end of Kindergarten and first grade. This study asks whether equipping parents can blunt those gaps — and whether it can do so for families who could never purchase the support on their own.

Identified Gaps

- The home is the highest-leverage, least-resourced layer of early literacy.
- Alarming gaps appear in beginning-of-year (BOY) Acadience data for first and second graders.
- Summer slide erodes gains at the end of Kindergarten and at the end of first grade.
- Most parents want to help but were never shown how — a system-design gap, not a parenting gap.
- Rural, mineral-impacted, and high-need families are least able to purchase support on their own.

USBE Strategic Alignment

The study maps directly to two of the Board's four strategic-plan goals, and to the State's statutory literacy commitments.

- **Goal 1 — Early Learning.** “Each student starts strong through early grades with a foundation in literacy and numeracy.” This study builds that foundation where it begins — in the home — strengthening the early-reading trajectory the Board tracks toward third-grade proficiency.
- **Goal 4 — Personalized Teaching & Learning.** “Each student and educator has access to personalized teaching and learning experiences.” **rinnalla** delivers coaching that adapts to each child, extending personalized learning beyond the classroom into everyday moments at home.

The study also advances the State's K–3 Reading Goal and the individual-reading-plan requirements of SB 241 by equipping parents to participate, and it concentrates on the rural, mineral-impacted communities at the heart of the mineral-lease fund's purpose — extending equitable access to the families furthest from support.

Study Design

The intervention: **rinnalla** coaches a parent through a short daily cycle — Watch → Cue Card + Commit → Practice → Reflect — that turns ordinary moments into evidence-based, play-based literacy practice, personalized and adaptive to each child, on the parent's phone.

- Two cohorts — Kindergarten and first grade — followed across a single study year that spans the intervening summer.
- Sites in rural (including mineral-impacted) districts, Title I urban schools, and targeted-assistance schools identified as in need of support.
- A quasi-experimental design: participating sites are compared against schools matched from Utah's statewide Acadience Reading data on community type, Title I status, and prior-year performance — no school serves as a control and none carries added testing burden.
- LXD Research (Dr. Rachel Schechter) independently designs, collects, analyzes, and owns the findings. **rinnalla** delivers the program and family support; the Alma Street Foundation serves as research partner. Neither has access to outcome data.

Research Questions

- **1. Kindergarten cohort.** Do participating children reach the first-grade-ready benchmark at the beginning of 1st grade at higher rates than comparable Utah children? (Targets summer slide at the end of Kindergarten and the beginning-of-1st-grade gap.)
- **2. First-grade cohort.** Do participating children arrive at the beginning of 2nd grade at or above benchmark at higher rates than comparison? (Targets summer slide at the end of first grade and the beginning-of-2nd-grade gap.)
- **3. Mechanism.** Among participating families, does parent confidence rise, do at-home routines take hold, and do those gains track with children's reading growth?

Family Support & Implementation Fidelity

A study of family coaching measures only what families actually receive. This line funds the human support that makes the intervention real in homes across the study year — and protects the Board's investment from producing an uninterpretable result. An underserved family is not a null finding; it is an unmeasured one.

- **A dedicated family support lead.** A named staff member that families and sites can reach throughout the study year — onboarding assistance, troubleshooting, and proactive re-engagement outreach to families whose usage lapses. Re-engagement is the single largest driver of analyzable sample size.
- **Parent office hours.** Recurring virtual sessions where families can ask questions, receive live coaching on the practice, and build confidence in the routine. Scheduled around working-family availability, including evenings.
- **Site liaison support.** A consistent point of contact for participating schools — launch coordination, workshop delivery, and ongoing communication with the staff who encourage family participation.
- **Implementation monitoring.** Structured tracking of activation, engagement, and support contacts, reported to the independent evaluator as implementation-fidelity context — kept operationally separate from outcome data.

Spanish-Language Support

Spanish-speaking families receive support in Spanish, not translated text alone. **rinnalla**'s full Spanish translation ships in August 2026, ahead of the October launch. Live family support and parent office hours are delivered in Spanish by the **rinnalla** team.

This matters to the study's validity as well as its equity. If Spanish-speaking families in Title I sites receive a thinner version of the intervention than English-speaking families, differential implementation is embedded in the findings. Funding bilingual live support keeps the intervention consistent across the population the study is designed to reach.

Methodology & Projected Impact

Children are measured on Acadience Reading at the beginning, middle, and end of year — assessments already administered statewide, so both treatment and comparison scores are available without new testing. Because Acadience measures different foundational skills at each grade, outcomes are defined as benchmark-status transitions and Acadience's grade-adjusted Pathways of Progress, set by the independent evaluator; the study does not compare raw scores across grades. Parent confidence is measured with a short, validated self-efficacy instrument, and at-home routines are tracked among participating families.

The study is offered at three investment levels, so the Board can model options against the reach it wishes to fund. Each level funds the independent evaluation, family support and implementation fidelity, site implementation, and free family licenses (October 2026 – October 2027):

Investment level	Sites (rural / urban)	Families & children served	~ % of each Utah grade	Funds serving families directly*
Base — \$297,800	19 (14 / 5)	~1,450	~1.5%	83%
Expansion — \$397,200	27 (20 / 7)	~2,050	~2.1%	87%
Full — \$493,400	34 (25 / 9)	~2,600	~2.7%	90%

**Family licenses plus training, launch, and family support — the share of the request delivered directly to families. The remainder funds the independent evaluation.*

What Each Level Funds

The request covers three things, not a license purchase. At the Base level, \$99 per family per year accounts for roughly half the request; the balance funds the training and family support that make the program work in homes, and the independent evaluation that produces the evidence.

Line item	Base	Expansion	Full
Independent research & evaluation (LXD Research)	\$50,000	\$50,000	\$50,000
Training, launch & family support	\$104,250	\$144,250	\$186,000
Family program — free licenses (\$99 / family / year)	\$143,550	\$202,950	\$257,400
Total request	\$297,800	\$397,200	\$493,400

The study leans rural (roughly 74% of sites) to concentrate on the mineral-impacted communities the fund is meant to serve; Title I urban and targeted-assistance schools carry family volume and test the intervention across a gradient of need. Family counts span both cohorts; the analyzable sample is set by the independent evaluator.

Hypothesized effect (the question the study tests, not a promised result): that equipping parents raises the share of children reaching benchmark and reduces summer slide, consistent with the research base below — or, just as valuably, that it does not.

Procurement

This is submitted as a sole-source request. **rinnalla** is a parent-coaching program grounded in the Science of Reading, delivering personalized, adaptive coaching to a caregiver through a short daily cycle. Utah's existing state-provided family resources deliver information to parents; they do not coach a parent through practice with a specific child and adapt to that child over time. To the best of our knowledge, no comparable product is available for procurement in Utah.

Because the study tests a specific intervention rather than a category of tools, the intervention and the evaluation are necessarily paired. The State owns the resulting evidence, and that evidence serves every Utah district regardless of which tools it adopts — including a finding that the intervention does not work.

Research & Evidence

The grounding is established. Sénéchal's (2006) meta-analysis found that parents who teach targeted foundational skills produce roughly six times the measurable impact of parents who read aloud alone — regardless of family income or a child's reading level. **rinnalla** puts that science in the hands of parents who were never taught how to use it, grounded throughout in the Science of Reading and aligned with Utah's LETRS investment.

The matched-comparison, quasi-experimental design drawing on Utah's statewide Acadience data is the design category ESSA recognizes for moderate evidence, and it establishes the foundation for a larger, multi-district trial.

Evaluation Plan

Data collection

- Acadience Reading (already administered statewide) plus short parent self-efficacy and routines surveys among participating families.

- Minimal-data by design: student performance data is shared directly with the independent evaluator, never with **rinnalla** or the Foundation; no personally identifiable information leaves the family's device.
- IRB approval and data-sharing agreements are finalized before any data is collected.

Participant incentives are not included in this request. The partnering schools have committed to supporting survey and interview completion directly — communicating the purpose to families and encouraging participation — because they want the findings for their own communities. This reduces the cost of the study and reflects genuine site investment in it.

Timeline

When	Milestone
August 7, 2026	Finance Committee review — independent evaluator available for questions
September 2026	Full Board consideration
October 2026	Launch; free family licenses active October 2026 – October 2027
Fall 2026	Baseline (beginning-of-year) Acadience Reading — both cohorts
Winter – Spring 2027	Middle- and end-of-year Acadience Reading
Fall 2027	Second-year beginning-of-year Acadience — the fall-to-fall window that captures summer
2027 – 2028	Analysis and reporting to the Board

Reporting

Findings are reported to the Board and made public. The State owns the evidence, which serves every Utah literacy effort regardless of which tools a district adopts.

Disclosure & Conflict Management

This request is made with full disclosure of every relationship that touches it. The following are stated proactively rather than in response to inquiry.

The founder's advisory panel appointment

rinnalla's founder, Marci Houseman, serves on the Utah State Board of Education's Science of Reading advisory panel — an unpaid advisory appointment. Before accepting it, she disclosed to Board staff that she was launching **rinnalla** and intended to work with Utah schools, and was advised that the roles were compatible.

The panel carries no authority over procurement, funding, or this request. The founder holds no vote on this proposal, will not participate in any panel discussion that touches it, and will not take part in the Board's deliberation. The panel appointment is advisory to the State's literacy work and confers no advantage in this process.

Board and district relationships

Any Board member or district leader with a connection to a proposed study site discloses that relationship in writing, recuses from the funding decision, and takes no part in site selection. Site selection is made on research merit and readiness by the independent evaluator, not on relationship.

Where a proposed site sits within a Board member's own district, that fact is disclosed on the record and the member recuses.

Independence of the research

- LXD Research independently designs, collects, analyzes, and owns the findings. A null or negative result is a real and valuable possibility, and findings publish regardless of outcome.
- Student performance data is shared directly with the independent evaluator, never with **rinnalla** or the Alma Street Foundation. No personally identifiable information leaves the family's device.
- Family support staff funded by this request work on delivery and re-engagement only. They have no access to outcome data and no role in analysis.

Pricing

Family licenses are provided free to participating families. The per-family rate in this request is \$99 per year, below **rinnalla**'s commercial rate of \$120 per family per year. No participating family pays anything.

Utah would be among the first states to answer whether equipping parents moves children's earliest reading outcomes — built so the answer, whatever it turns out to be, is one Utah can trust and every district can use.

Communities build readers.

UTAH STATE BOARD OF EDUCATION

Subject:

INFORMATION: Public Education Equalization Stabilization Restricted Fund

Agenda item type:

Information Item

Recommended Action:**Purpose of Memo:**

Requested by 3 or more members of the board

Background:

At its May 22, 2026, special Finance Committee meeting, the Committee directed staff to return with additional information and potential options for establishing guardrails for the Education Stabilization Fund.

Background

Established under [UCA 53F-9-204](#), the [Public Education Economic Stabilization Restricted Fund \(PEESRF\)](#) functions as a "working rainy day fund" to safeguard public education funding.

- Funding Mechanism: The Legislature allocates 15% of ongoing revenue growth from the Income Tax Fund and Uniform School Fund into this stabilization account.
- Purpose: These reserves ensure the state can consistently pay for student enrollment growth and inflation in the event of an economic downturn.
- A savings limit for the fund is set in formula, with the excess available for one-time priorities.
- PEESRF prioritizes five specific one-time appropriations (professional hours, teaching supplies and materials, and three grant programs) to be funded annually above the cap before the remaining one-time money is appropriated for other uses.

2024 Legislative Session Actions

- \$80 million one-time PEESRF funds appropriated directly to the permanent school trust fund.
- HB 262 passed, Sponsor Casey Snider - Provides for the sale of large land blocks of trust lands with low revenue generation and significant recreational value.

2025 Legislative Session Action

- \$50 million one-time PEESRF funds appropriated to the Department of Natural Resources (DNR) to purchase large land blocks of school trust lands.

2026 Trust Lands Administration (TLA) Action

- April 10, 2026: Noticed the sale of 50,000 surface acres of public school trust lands in the Roadless Area of the Book Cliffs after multiple appraisals.
- June 18, 2026: Approved the transaction with DNR for \$30 million (appropriated to DNR from the PEESRF) based on the TLA Director's Finding and a vote of the trustees.
- Two other school trust properties, including Sand Ledges and Phil Pico, are of interest to DNR that meet the requirements in Utah Code for a potential direct sale.

Legislative perspective

- While not yet utilized for its original purpose, PEESRF has been successful in establishing a stable revenue source to pay for growth and inflation in an economic downturn.
- PEESRF grew faster than anticipated, leaving [significant excess for one-time projects](#).
- Projects funded with one-time funding often come with ongoing expectations the legislature cannot honor.
- Looking ahead: Determine the best uses for one-time funds and consider how to transfer one-time education funds into ongoing revenue generation with strategic investment in a permanent fund.

Recommendations for the Utah State Board of Education

- Consider parameters for the allowable/appropriate one-time uses of PEESRF account balances that exceed the cap.
- Representative Snyder welcomes a meeting with Board Leadership to discuss concerns and possible solutions, including appropriations specific to the large land block purchases.
- Consider [HB 521](#) *Public Education Economic Stabilization Restricted Account Amendments*, Representative Walter and Senator Sandal - Introduced in 2026 creates a new permanent fund for education by sweeping one-time PEESRF funds that exceed the cap.

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Attachments:

None

UTAH STATE BOARD OF EDUCATION

Subject:

INFORMATION: Operational & Legal Framework Update for Utah System of Higher Education (USHE) and the Utah Data Research Center (UDRC) BRIDGE System

Agenda item type:

Information Item

Recommended Action:

N/A

Purpose of Memo:

Result of legislative action

Background:**Project Overview**

USBE is currently managing a four-year federal Statewide Longitudinal Data Systems (SLDS) grant project running from September 2023 to October 2027. Executed in partnership with the Utah System of Higher Education (USHE) and its division, the Utah Data Research Center (UDRC), this initiative is known as the **BRIDGE Project**. Its core objective is to build a modernized, secure system allowing state agencies to share specific individual-level data for daily operational and transactional needs.

Strategy Change & Legislative Action

- **Original Plan (2023):** UDRC originally intended to establish the system using simple data-sharing agreements (Memorandums of Understanding, or MOUs) between participating agencies.
- **Privacy Shift (2025):** Due to evolving privacy standards around Personally Identifiable Information (PII), legal guidance determined that basic MOUs were no longer sufficient. Utah law needed to explicitly authorize UDRC to receive and share PII-bearing data for operational purposes.
- **Legislative Approval (2026):** Lawmakers passed **S.B. 195**, updating Utah Code (Section 53H-15-305) to give UDRC explicit statutory authority to handle personal data for the BRIDGE program.

New Statutory Requirement

Before UDRC can finalize MOUs and begin sharing data, S.B. 195 requires USHE and UDRC to establish official state **Administrative Rules** that define exact security, privacy, and operational procedures.

Key Takeaways for USBE (Administrative Rule R765-1002)

To fulfill this legal requirement, UDRC has drafted Administrative Rule **R765-1002**. Key highlights for USBE include:

- **USBE Retains Control:** USBE keeps full ownership of its data. The rule guarantees USBE the right to approve which agencies access its data and allows USBE to pause or terminate data-sharing services at any time.

- **High Security Standards:** Any cloud environment hosting shared data must comply with strict federal security benchmarks (**FedRAMP Moderate Impact Baseline**).
- **Incident Response Protocols:** UDRC must maintain strict data breach protocols and promptly notify USBE if any privacy or security incident occurs.

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Attachments:

1. USHE R1002 - UDRC Participating State Agency Access

R1002, UDRC Participating State Agency Access¹

R1002-1 Purpose: The following policy² has been codified as Utah Administrative Code R765-1002.

R1002-2 References

2.1 Utah Code Section 53H-15-305, Participating State Agency Access

R765. Higher Education (Board of), Administration.

R765-1002. UDRC Participating State Agency Access.

R765-1002-1. Purpose.

To provide for the administration of the Utah Data Research Center (“UDRC”) participating state agency access program established under Section 53H-15-305.

R765-1002-2. Authority.

This rule is authorized by Subsection 53H-15-305(6).

R765-1002-3. Definitions.

Except as provided in Subsection R765-1002-3(7), the definitions in Sections 53H-1-101, 53H-15-101, and 63A-19-101 apply to this rule.

(1) “Accessing agency” means a department, division, office, entity, agency, or other unit of state government that requests access to, or receives, data through the UDRC state agency access program.

(2) “Agency data” means program data associated with a specific participating state agency by being:

(a) provided by the participating state agency; or

(b) derived from data provided by the participating state agency.

(3) “Aggregate data” has the meaning given in Section 53H-14-101.

(4) “Data exchange service” means a technical service administered by the UDRC state agency access program that makes specific agency data available to an accessing agency.

(5) “Data exchange service request” means a request by an accessing agency for access to a data exchange service that meets the requirements under Subsection R765-1002-6(2).

¹ *Adopted XXX.*

² This administrative rule is still going through the codification process and minor, non-substantive edits to conform with the Administrative Code may need to be made.

- (6) "Data subject" means the person about whom information is stored by the UDRC state agency access program in a physical or electronic record.
- (7) "De-identified data" has the meaning given in Section 53H-15-101.
- (8) "Exchanged data" means data made available to an accessing agency by the UDRC state agency access program through a data exchange service.
- (9) "Operational transactional purpose" means the processing of data regarding an individual by an accessing agency to provide goods or services to the individual.
- (10) "Participation agreement" means a written agreement establishing the terms and conditions under which a participating state agency provides data to the UDRC state agency access program.
- (11) "Program data" means data that the UDRC processes under the state agency access program.
- (12) "Providing state agency" means the participating state agency associated with the agency data made available to accessing agencies as exchanged data through a data exchange service.
- (13) "State agency access program" means the participating state agency access program established under Section 53H-15-305.

R765-1002-4. Participation Agreements.

- (1) The UDRC shall enter into a participation agreement with a participating state agency before collecting data for use in the state agency access program.
- (2) A participation agreement shall include the following minimum elements:
 - (a) specifying the personal data that the participating state agency will share with the UDRC;
 - (b) defining the purposes for which the UDRC may use the personal data contributed by the participating state agency;
 - (c) identifying the data exchange services that the UDRC will administer using the participating state agency's data;
 - (d) stating which accessing agencies may access the participating state agency's data;
 - (e) requiring the UDRC to inform a participating state agency of each accessing agency's access to a data exchange service before the UDRC grants the accessing agency access to the data exchange service;
 - (f) permitting a participating state agency to suspend or terminate:
 - (i) a data exchange service; or
 - (ii) an accessing agency's access to a data exchange service.
 - (g) establishing data disposition requirements and timelines for disposing of personal data the participating state agency discloses when the personal data is no longer needed for the state agency access program in compliance with state and federal law;
 - (h) specifying the end user terms applicable to the agency data; and
 - (i) prohibiting the UDRC from disclosing agency data to any party unless the party agrees to comply with the end user terms applicable to the agency data.
- (3) End user terms shall include the following minimum provisions:

- (a) licensing the accessing agency to process agency data subject to the requirements of the data exchange service request, end user terms, applicable federal and state laws including Section 53H-15-305, and this rule;
- (b) requiring the accessing agency to limit the accessing agency's processing of exchanged data for the purposes specified in the data exchange service request;
- (c) requiring the accessing agency to limit access to exchanged data to authorized accessing agency personnel, data subjects or their representatives, or as otherwise required by law;
- (d) acknowledging that the UDRC or the participating state agency whose agency data is made available to the accessing agency as exchanged data through the data exchange service may suspend or terminate the data exchange service or the accessing agency's access to the data exchange service; and
- (e) requiring the accessing agency to comply with:
 - (i) applicable federal and state laws to which access to agency data through the data exchange service is subject;
 - (ii) data security requirements applicable to the exchanged data;
 - (iii) conditions under which the accessing agency may redisclose exchanged data;
 - (iv) data disposition timelines and procedures applicable to the exchanged data;
 - and
 - (v) any other terms or conditions required by the UDRC or the participating state agency to which the accessing agency's access to exchanged data through the data exchange service is subject.

R765-1002-5. Data Protection Procedures.

- (1) The UDRC shall process personal data in a manner that is consistent with an individual's fundamental interest in and inherent expectation of privacy regarding the individual's personal data that the individual provides to a governmental entity in accordance with Section 63A-19-102(1).
- (2) The UDRC shall adopt and implement reasonable physical, technical, or administrative controls that protect against unauthorized access, use, or redisclosure of data in possession of the UDRC by:
 - (a) limiting access to program data to:
 - (i) authorized UDRC personnel;
 - (ii) participating state agency personnel authorized to access the participating state agency's agency data; and
 - (iii) accessing agency personnel authorized to access exchanged data through a data exchange service;
 - (b) limiting the redisclosure of data to accessing agencies for purposes permitted under Section 53H-15-305, this rule, and the participation agreement governing the data; and
 - (c) ensuring that all data environments and systems in which the UDRC processes program data are protected in accordance with:

- (i) if the environment or system is operated by the UDRC, an industry-recognized system of security standards and requirements for protecting personal data; or
 - (ii) if the environment or system is a cloud service offering, the FedRAMP Moderate Impact Baseline Security Controls standard.
- (3) The UDRC shall adopt and maintain a data incident response plan that:
 - (a) is consistent with the requirements of:
 - (i) Board Policies R345, *Information Technology Resource Security*; R1010, *Data Breaches*; and R1013, *Scope of the Data Breach Requirements in the Utah Government Privacy Act*; and
 - (ii) FedRAMP Moderate Impact Baseline Security Controls; and
 - (b) requires:
 - (i) prompt notification of and cooperation with affected participating state agencies;
 - (ii) compliance with the data breach notification requirements of Sections 53H-14-504, 63A-19-405, and 63A-19-406 to the extent applicable;
 - (iii) compliance with any requirements specified in a participation agreement applicable to the agency data affected by a data incident; and
 - (iv) compliance with any additional relevant laws, regulations, or policies.
- (4) The UDRC shall not:
 - (a) process data from any party that is not a participating state agency; or
 - (b) make program data available to any party that is not an accessing agency.

R765-1002-6. Data Exchange Service Access.

- (1) An accessing agency shall complete a data exchange service request before accessing agency data through a data exchange service.
- (2) An accessing agency making a data exchange request shall:
 - (a) specify the purpose for which the accessing agency will use the exchanged data;
 - (b) acknowledge that the UDRC or the providing state agency may suspend or terminate the data exchange service or the accessing agency's access to the data exchange service at any time; and
 - (c) accept and comply with the terms and conditions established by the UDRC and the providing state agency to which access to exchanged data through a data exchange service is subject.
- (3) The UDRC shall only make agency data available to an accessing agency under a data exchange service request if:
 - (a) the UDRC approves the data exchange service request in accordance with the participation agreement governing the data exchange service; or
 - (b) the UDRC requests review of the data exchange service request by the providing state agency to which the accessing agency has requested access under the data exchange service request and the providing state agency approves the data exchange service request.

(4) Nothing in Subsection R765-1002-7(3) shall be construed as requiring the UDRC to request that a providing state agency review or approve a data exchange service where the relevant participation agreement does not otherwise require approval of the data exchange service request by the providing state agency.

UTAH STATE BOARD OF EDUCATION

Subject:

INFORMATION: Special Education Funding Options for Schools/LEAs with High Rates of SPED Students

Agenda item type:

Information Item

Recommended Action:**Purpose of Memo:**

Staff recommendation

Background:

In February 2026, the Utah State Board of Education approved a rule change to R277-479 to bring allocations from the Special Education Add-On formula for certain charter schools in line with other LEAs. Spectrum Academy, because of its high rates of SPED students, was exempted from this rule changes. However, with an expansion into St. George, Spectrum Academy, according to R277-479 would receive a very significant cut in Special Education Add-On funding. This effectively prevents Spectrum Academy from expanding.

On June 4, 2026, USBE approved a motion to seek “a legislative change to address the special education funding issues raised by LEAs and schools with unusually high rates of special education students (e.g. greater than 70%).”

Over the summer, USBE staff have met with the Office of the Legislative Fiscal Analyst and other legislative staff to assess different approaches to address both the issues faced by Spectrum Academy and other LEAs and schools that have unusually high rates of special education students.

The purpose of this item is to inform Finance Committee and the public of the different options being explored through this process.

Contact:

Name: Dale Frost
Title: MSP Administrator
Phone: 801-538-7606
Email: dale.frost@schools.utah.go

Attachments:

1. SPED Funding Options for Schools & LEAs with High Rates of SPED Students 7.23.2026

SPED Funding Options for Schools & LEAs with High Rates of SPED Students		
Policy Option	Option A	Option B
Description	Phase down Spectrum SPED Add-On funding (over 10 years) to a ratio of 1.35 WPU's per SPED ADM.	No phase-down of existing Spectrum SPED funding, and state conducts a SPED cost study.
Spectrum Allowed to Expand to St. George?	No	No
Perpetuates Double-Standard in Formula?	No	Yes
Statewide Costs/(Savings)	\$ (9,350,000)	\$ 200,000
Spectrum SPED \$ Chnge.	\$ (9,350,000)	\$ -
Policy Option	Option C	Option D
Description	Separate funding is provided up to a SPED ratio of 2.5 WPU's for Spectrum St. George campus, and state conducts a SPED cost study. No phase-down of existing Spectrum SPED funding.	Separate funding is provided up to a SPED ratio of 2.5 WPU's for all schools with more than 70% SPED students. No phase-down of existing Spectrum SPED funding.
Spectrum Allowed to Expand to St. George?	Yes	Yes
Perpetuates Double-Standard in Formula?	Yes	Yes
Statewide Costs/(Savings)	\$ 1,808,000	\$ 11,200,000
Spectrum SPED \$ Chnge.	\$ 1,608,000	\$ 1,608,000
Policy Option	Option E	Option F
Description	Break out SPED SC into a new Time Code "D" for students >300 minutes per day of SPED Services weighted at 3.0 WPU's and increase SPED SC weighting for remaining SC students to 1.5 WPU's. Phase down Spectrum SPED Add-On funding to a ratio of 1.35 WPU's.	Weight all SPED SC ADM at 2.5 WPU's. Phase down Spectrum SPED Add-On funding to a ratio of 1.35 WPU's.
Spectrum Allowed to Expand to St. George?	Yes	Yes
Perpetuates Double-Standard in Formula?	No	No
Statewide Costs/(Savings)	\$ 48,900,000	\$ 82,600,000
Spectrum SPED \$ Chnge.	\$ (1,335,000)	\$ (1,031,000)

SPED Funding Options for Schools & LEAs with High Rates of SPED Students - Phase-In Modeling

Statewide/Spectrum Impacts

FY	Option A - Statewide/ Spectrum (10-Year Phase-In) - Cumulative	Option A - Statewide/ Spectrum (10-Year Phase-In) - Annualized	Option C - Statewide/ Spectrum (1-Year) - Cumulative	Option C - Statewide/ Spectrum(1-Year Phase-In) - Annualized
FY28	\$ (935,000)	\$ (935,000)	\$ 1,608,000	\$ 1,608,000
FY29	\$ (1,945,000)	\$ (1,000,000)	\$ 1,672,000	\$ 62,000
FY30	\$ (3,034,000)	\$ (1,000,000)	\$ 1,739,000	\$ 62,000
FY31	\$ (4,207,000)	\$ (1,100,000)	\$ 1,809,000	\$ 62,000
FY32	\$ (5,469,000)	\$ (1,200,000)	\$ 1,881,000	\$ 62,000
FY33	\$ (6,825,000)	\$ (1,300,000)	\$ 1,957,000	\$ 62,000
FY34	\$ (8,281,000)	\$ (1,400,000)	\$ 2,035,000	\$ 62,000
FY35	\$ (9,842,000)	\$ (1,500,000)	\$ 2,116,000	\$ 62,000
FY36	\$ (11,516,000)	\$ (1,600,000)	\$ 2,201,000	\$ 62,000
FY37	\$ (13,306,000)	\$ (1,700,000)	\$ 2,289,000	\$ 62,000
FY28 PV	\$ (9,350,000)		\$ 1,608,000	

Statewide Impacts

FY	Option D - Statewide (2-Year Phase-In) - Cumulative	Option D - Statewide (2-Year Phase-In) - Annualized	Option E - Statewide (5- Year Phase-In) - Cumulative	Option E - Statewide (5- Year Phase-In) - Annualized	Option F - Statewide (10-Year) - Cumulative	Option F - Statewide (10-Year Phase-In) - Annualized
FY28	\$ 5,600,000	\$ 5,600,000	\$ 9,800,000	\$ 9,800,000	\$ 8,300,000	\$ 8,300,000
FY29	\$ 11,600,000	\$ 5,770,000	\$ 20,300,000	\$ 10,097,000	\$ 17,200,000	\$ 8,558,000
FY30	\$ 12,100,000	\$ 462,000	\$ 31,700,000	\$ 10,540,000	\$ 26,800,000	\$ 8,876,000
FY31	\$ 12,600,000	\$ 445,000	\$ 44,000,000	\$ 10,935,000	\$ 37,200,000	\$ 9,246,000
FY32	\$ 13,100,000	\$ 427,000	\$ 57,200,000	\$ 11,284,000	\$ 48,300,000	\$ 9,488,000
FY33	\$ 13,600,000	\$ 411,000	\$ 59,500,000	\$ 1,890,000	\$ 60,300,000	\$ 9,863,000
FY34	\$ 14,100,000	\$ 395,000	\$ 61,900,000	\$ 1,897,000	\$ 73,200,000	\$ 10,196,000
FY35	\$ 14,700,000	\$ 456,000	\$ 64,400,000	\$ 1,900,000	\$ 87,000,000	\$ 10,488,000
FY36	\$ 15,300,000	\$ 438,000	\$ 66,900,000	\$ 1,827,000	\$ 101,800,000	\$ 10,815,000
FY37	\$ 15,900,000	\$ 422,000	\$ 69,600,000	\$ 1,897,000	\$ 117,600,000	\$ 11,102,000
FY28 PV	\$ 11,200,000		\$ 48,900,000		\$ 82,600,000	

Spectrum Impacts

FY	Option D - Spectrum/ (2-Year Phase-In)	Option D - Spectrum (2-Year Phase-In) - Annualized Costs	Option E - Spectrum (5- Year Phase-In)	Option E - Spectrum (5- Year Phase-In) - Annualized Costs	Option F - Spectrum (10-Year Phase-In)	Option F - Spectrum (10-Year Phase-In) - Annualized Costs
FY28	\$ 804,000	\$ 804,000	\$ (267,000)	\$ (267,000)	\$ (103,000)	\$ (103,000)
FY29	\$ 1,672,000	\$ 835,000	\$ (555,000)	\$ (277,000)	\$ (214,000)	\$ (107,000)
FY30	\$ 1,739,000	\$ 62,000	\$ (866,000)	\$ (288,000)	\$ (335,000)	\$ (112,000)
FY31	\$ 1,809,000	\$ 62,000	\$ (1,201,000)	\$ (298,000)	\$ (464,000)	\$ (115,000)
FY32	\$ 1,881,000	\$ 62,000	\$ (1,562,000)	\$ (309,000)	\$ (603,000)	\$ (119,000)
FY33	\$ 1,957,000	\$ 62,000	\$ (1,624,000)	\$ (51,000)	\$ (753,000)	\$ (123,000)
FY34	\$ 2,035,000	\$ 62,000	\$ (1,689,000)	\$ (51,000)	\$ (913,000)	\$ (126,000)
FY35	\$ 2,116,000	\$ 62,000	\$ (1,756,000)	\$ (51,000)	\$ (1,085,000)	\$ (131,000)
FY36	\$ 2,201,000	\$ 62,000	\$ (1,827,000)	\$ (52,000)	\$ (1,270,000)	\$ (135,000)
FY37	\$ 2,289,000	\$ 62,000	\$ (1,900,000)	\$ (51,000)	\$ (1,467,000)	\$ (138,000)
FY28 PV	\$ 1,608,000		\$ (1,335,000)		\$ (1,031,000)	

UTAH STATE BOARD OF EDUCATION

Subject:

INFORMATION: Recognition of Progress, Achievements, or Improvements

Agenda item type:

Information Item

Recommended Action:

Information - no action.

Purpose of Memo:

Requested by 3 or more members of the board

Background:

Finance Committee Members are provided recognition by the Deputy Superintendent of Operations of key progress, improvement, and/or achievements by staff and/or programs on a monthly basis.

Contact:

Name: Scott Jones
Title: Deputy Superintendent of Operations
Phone: 801-538-7514
Email: Scott.Jones@schools.utah.gov

Attachments:

1. 2026-2027 _ Distribution Workbook _ MASTER - Google Sheets
2. Copy of 2026-2027 _ SLT Distribution Summary
3. Compliance with ARPA SLFRF Federal Funds Management
4. C Shakespear ACFE Certificate
5. J Wilcox ACFE Certificate

Funding Tracker

2026-2027 School LAND Trust Program

STATE	Type	Available	Total Funded	% Total Funded	Remaining	July
	District	\$ 116,209,249.67	\$ 114,407,164.80	98.4%	\$ 1,802,084.87	\$ 114,200,505.01
	Charter	\$ 17,157,362.50	\$ 16,787,694.12	97.8%	\$ 369,668.38	\$ 16,787,694.12
	USDB	\$ 46,653.11	\$ 46,653.11	100.0%	\$ -	\$ 46,653.11
	TOTALS	\$ 133,413,265.28	\$ 131,241,512.03	98.4%	\$ 2,171,753.25	\$ 131,034,852.24

	Identifier (LEA Number)	LEA	Available	Total Funded	% Total Funded	Remaining	July
DISTRICTS	1	Alpine District	\$ 15,805,961.88	\$ 15,655,533.51	99.0%	\$ 150,428.37	\$ 15,655,533.51
	2	Beaver District	\$ 548,508.01	\$ 458,909.19	83.7%	\$ 89,598.82	\$ 458,909.19
	3	Box Elder District	\$ 2,489,987.40	\$ 2,489,987.40	100.0%	\$ -	\$ 2,489,987.40
	4	Cache District	\$ 3,883,434.68	\$ 3,714,666.75	95.7%	\$ 168,767.93	\$ 3,714,666.75
	42	Canyons District	\$ 6,039,051.85	\$ 6,039,051.85	100.0%	\$ -	\$ 6,039,051.85
	5	Carbon District	\$ 855,749.16	\$ 855,749.16	100.0%	\$ -	\$ 855,749.16
	6	Daggett District	\$ 308,994.98	\$ 308,994.98	100.0%	\$ -	\$ 308,994.98
	7	Davis District	\$ 12,599,736.89	\$ 12,599,736.89	100.0%	\$ -	\$ 12,599,736.89
	8	Duchesne District	\$ 1,185,627.25	\$ 1,185,627.25	100.0%	\$ -	\$ 1,185,627.25
	9	Emery District	\$ 631,570.82	\$ 631,570.82	100.0%	\$ -	\$ 631,570.82
	10	Garfield District	\$ 524,228.11	\$ 517,743.54	98.8%	\$ 6,484.57	\$ 517,743.54
	11	Grand District	\$ 534,633.78	\$ 348,133.63	65.1%	\$ 186,500.15	\$ 348,133.63
	12	Granite District	\$ 10,227,608.77	\$ 9,984,867.05	97.6%	\$ 242,741.72	\$ 9,984,867.05
	13	Iron District	\$ 2,730,960.85	\$ 2,730,960.85	100.0%	\$ -	\$ 2,730,960.85
	14	Jordan District	\$ 10,473,693.81	\$ 10,473,693.81	100.0%	\$ -	\$ 10,473,693.81
	15	Juab District	\$ 767,939.90	\$ 509,548.67	66.4%	\$ 258,391.23	\$ 509,548.67
	16	Kane District	\$ 536,459.33	\$ 536,459.33	100.0%	\$ -	\$ 536,459.33
	39	Logan City District	\$ 1,209,907.13	\$ 1,209,907.13	100.0%	\$ -	\$ 1,209,907.13
	17	Millard District	\$ 830,556.49	\$ 830,556.49	100.0%	\$ -	\$ 830,556.49
	18	Morgan District	\$ 834,937.82	\$ 834,937.82	100.0%	\$ -	\$ 834,937.82
	40	Murray District	\$ 1,269,967.94	\$ 1,269,967.94	100.0%	\$ -	\$ 1,269,967.94
	19	Nebo District	\$ 7,891,444.09	\$ 7,891,444.09	100.0%	\$ -	\$ 7,891,444.09
	20	North Sanpete District	\$ 737,087.98	\$ 737,087.98	100.0%	\$ -	\$ 737,087.98
	21	North Summit District	\$ 470,374.18	\$ 470,374.18	100.0%	\$ -	\$ 470,374.18
	37	Ogden City District	\$ 2,072,117.49	\$ 2,072,117.49	100.0%	\$ -	\$ 2,072,117.49
	22	Park City District	\$ 1,022,605.04	\$ 1,022,605.04	100.0%	\$ -	\$ 1,022,605.04
	23	Piute District	\$ 357,919.91	\$ 357,919.91	100.0%	\$ -	\$ 357,919.91
	38	Provo District	\$ 2,658,486.24	\$ 2,658,486.24	100.0%	\$ -	\$ 2,658,486.24
	24	Rich District	\$ 371,976.69	\$ 371,976.69	100.0%	\$ -	\$ 371,976.69
	36	Salt Lake District	\$ 3,505,361.90	\$ 3,473,980.39	99.1%	\$ 31,381.51	\$ 3,473,980.39
	25	San Juan District	\$ 780,901.36	\$ 780,901.36	100.0%	\$ -	\$ 780,901.36
	26	Sevier District	\$ 1,063,314.97	\$ 1,063,314.97	100.0%	\$ -	\$ 1,063,314.97
	27	South Sanpete District	\$ 849,542.28	\$ 849,542.28	100.0%	\$ -	\$ 849,542.28
	28	South Summit District	\$ 560,191.56	\$ 560,191.56	100.0%	\$ -	\$ 560,191.56
	29	Tintic District	\$ 329,076.10	\$ 206,659.79	62.8%	\$ 122,416.31	\$ -
	30	Tooele District	\$ 3,166,721.17	\$ 3,166,721.17	100.0%	\$ -	\$ 3,166,721.17
	31	Utah District	\$ 1,442,665.60	\$ 1,442,665.60	100.0%	\$ -	\$ 1,442,665.60
	32	Wasatch District	\$ 1,782,949.34	\$ 1,501,636.83	84.2%	\$ 281,312.51	\$ 1,501,636.83
	33	Washington District	\$ 6,562,621.46	\$ 6,298,559.71	96.0%	\$ 264,061.75	\$ 6,298,559.71
	34	Wayne District	\$ 357,554.79	\$ 357,554.79	100.0%	\$ -	\$ 357,554.79

	35	Weber District	\$ 5,936,820.67	\$ 5,936,820.67	100.0%	\$ -	\$ 5,936,820.67
		TOTALS	\$ 116,209,249.67	\$ 114,407,164.80	98.4%	\$ 1,802,084.87	\$ 114,200,505.01

Identifier (LEA ID)	LEA	Available	Total Funded	% Total Funded	Remaining	July
83	Academy for Math Engineering & Science	\$ 87,917.61	\$ -	0.0%	\$ 87,917.61	\$ -
1M	Advantage Arts Academy	\$ 69,617.17	\$ 69,617.17	100.0%	\$ -	\$ 69,617.17
8K	American Academy of Innovation	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
8B	American Leadership Academy	\$ 309,220.96	\$ 309,220.96	100.0%	\$ -	\$ 309,220.96
74	American Preparatory Academy	\$ 1,052,690.55	\$ 1,052,690.55	100.0%	\$ -	\$ 1,052,690.55
2J	Ascent Academies of Utah	\$ 554,484.69	\$ 554,484.69	100.0%	\$ -	\$ 554,484.69
4K	Athenian eAcademy	\$ 114,817.56	\$ 114,817.56	100.0%	\$ -	\$ 114,817.56
5N	Azure Fields Charter High School	\$ -	\$ -		\$ -	\$ -
3G	Bear River Charter School	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
3B	Beehive Science & Technology Academy	\$ 168,477.32	\$ 168,477.32	100.0%	\$ -	\$ 168,477.32
6L	Bonneville Academy	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
3M	Bridge Elementary School	\$ 102,633.44	\$ 102,633.44	100.0%	\$ -	\$ 102,633.44
3E	C.S. Lewis Academy	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
5G	Canyon Grove Academy	\$ 314,389.71	\$ 314,389.71	100.0%	\$ -	\$ 314,389.71
9D	Canyon Rim Academy	\$ 96,973.51	\$ 96,973.51	100.0%	\$ -	\$ 96,973.51
2D	Channing Hall	\$ 115,462.62	\$ 115,462.62	100.0%	\$ -	\$ 115,462.62
87	City Academy	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
4N	Custom Class Charter School	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
A3	Davinci Academy	\$ 242,622.43	\$ 242,622.43	100.0%	\$ -	\$ 242,622.43
4E	Dual Immersion Academy	\$ 78,295.73	\$ 78,295.73	100.0%	\$ -	\$ 78,295.73
6F	Early Light Academy at Daybreak	\$ 195,267.66	\$ 195,267.66	100.0%	\$ -	\$ 195,267.66
A8	East Hollywood High	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
5E	Edith Bowen Laboratory School	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
8M	Elevated Charter School	\$ 72,824.46	\$ 72,824.46	100.0%	\$ -	\$ 72,824.46
3C	Entheos Academy	\$ 205,832.87	\$ 205,832.87	100.0%	\$ -	\$ 205,832.87
2I	Esperanza School	\$ 109,614.02	\$ 109,614.02	100.0%	\$ -	\$ 109,614.02
7F	Excelsior Academy	\$ 265,828.15	\$ 265,828.15	100.0%	\$ -	\$ 265,828.15
98	Fast Forward High	\$ 92,634.22	\$ 92,634.22	100.0%	\$ -	\$ 92,634.22
6K	Franklin Discovery Academy	\$ 149,233.55	\$ 149,233.55	100.0%	\$ -	\$ 149,233.55
82	Freedom Preparatory Academy	\$ 404,685.16	\$ 404,685.16	100.0%	\$ -	\$ 404,685.16
7E	Gateway Preparatory Academy	\$ 419,400.98	\$ 419,400.98	100.0%	\$ -	\$ 419,400.98
5D	George Washington Academy	\$ 194,324.34	\$ 194,324.34	100.0%	\$ -	\$ 194,324.34
8G	Good Foundations Academy	\$ 83,578.33	\$ 83,578.33	100.0%	\$ -	\$ 83,578.33
7J	Greenwood Charter School	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
1E	Guadalupe School	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
8F	Hawthorn Academy	\$ 252,244.32	\$ 252,244.32	100.0%	\$ -	\$ 252,244.32
5H	Highmark Charter School	\$ 126,593.82	\$ 126,593.82	100.0%	\$ -	\$ 126,593.82
5L	Ignite Entrepreneurship Academy	\$ 84,898.98	\$ 84,898.98	100.0%	\$ -	\$ 84,898.98
2C	InTech Collegiate Academy	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
A5	Itineris Early College High	\$ 69,805.83	\$ 69,805.83	100.0%	\$ -	\$ 69,805.83
1G	Jefferson Academy	\$ 90,558.92	\$ 90,558.92	100.0%	\$ -	\$ 90,558.92
93	John Hancock Charter School	\$ 243,508.82	\$ 243,508.82	100.0%	\$ -	\$ 243,508.82
2E	Karl G. Maeser Preparatory Academy	\$ 126,782.48	\$ 126,782.48	100.0%	\$ -	\$ 126,782.48
4C	Lakeview Academy	\$ 208,096.84	\$ 208,096.84	100.0%	\$ -	\$ 208,096.84
3L	Leadership Academy of Utah	\$ 99,237.48	\$ 99,237.48	100.0%	\$ -	\$ 99,237.48
3I	Leadership Learning Academy	\$ 167,854.40	\$ 167,854.40	100.0%	\$ -	\$ 167,854.40
5C	Legacy Preparatory Academy	\$ 180,740.50	\$ 180,740.50	100.0%	\$ -	\$ 180,740.50
2B	Lincoln Academy	\$ 171,495.95	\$ 171,495.95	100.0%	\$ -	\$ 171,495.95

CHARTERS	9J	Lumen Scholar Institute	\$ 84,521.65	\$ 84,521.65	100.0%	\$ -	\$ 84,521.65
	4I	Mana Academy Charter School	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
	4G	Maria Montessori Academy	\$ 75,843.09	\$ 75,843.09	100.0%	\$ -	\$ 75,843.09
	8E	Merit College Preparatory Academy	\$ 76,031.76	\$ 76,031.76	100.0%	\$ -	\$ 76,031.76
	7C	Monticello Academy	\$ 219,982.70	\$ 219,982.70	100.0%	\$ -	\$ 219,982.70
	9F	Mountain Heights Academy	\$ 165,647.35	\$ 165,647.35	100.0%	\$ -	\$ 165,647.35
	4M	Mountain Sunrise Academy	\$ 91,879.57	\$ 91,879.57	100.0%	\$ -	\$ 91,879.57
	3J	Mountain View Montessori	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
	5J	Mountain West Montessori Academy	\$ 86,030.97	\$ 86,030.97	100.0%	\$ -	\$ 86,030.97
	8C	Mountainville Academy	\$ 130,178.44	\$ 130,178.44	100.0%	\$ -	\$ 130,178.44
	9B	Navigator Pointe Academy	\$ 69,428.50	\$ 69,428.50	100.0%	\$ -	\$ 69,428.50
	A1	No. UT. Acad. for Math Engineering & Science	\$ 216,020.75	\$ 216,020.75	100.0%	\$ -	\$ 216,020.75
	6D	Noah Webster Academy	\$ 99,803.47	\$ 99,803.47	100.0%	\$ -	\$ 99,803.47
	A6	North Davis Preparatory Academy	\$ 176,023.89	\$ 176,023.89	100.0%	\$ -	\$ 176,023.89
	5B	North Star Academy	\$ 98,105.49	\$ 98,105.49	100.0%	\$ -	\$ 98,105.49
	1C	Odyssey Charter School	\$ 85,842.31	\$ 85,842.31	100.0%	\$ -	\$ 85,842.31
	68	Ogden Preparatory Academy	\$ 183,759.13	\$ 183,759.13	100.0%	\$ -	\$ 183,759.13
	8D	Open Classroom	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
	7H	Pacific Heritage Academy	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
	9C	Paradigm High School	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
	86	Pinnacle Canyon Academy	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
	6H	Promontory School of Expeditionary Learning	\$ 76,975.08	\$ 76,975.08	100.0%	\$ -	\$ 76,975.08
	9E	Providence Hall	\$ 387,705.36	\$ 387,705.36	100.0%	\$ -	\$ 387,705.36
	1F	Quest Academy	\$ 189,041.74	\$ 189,041.74	100.0%	\$ -	\$ 189,041.74
	A2	Ranches Academy	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
	7B	Reagan Academy	\$ 127,348.48	\$ 127,348.48	100.0%	\$ -	\$ 127,348.48
	1D	Renaissance Academy	\$ 143,384.95	\$ -	0.0%	\$ 143,384.95	\$ -
	2F	Rockwell Charter High School	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
	3K	Roots Charter High School	\$ 69,182.91	\$ -	0.0%	\$ 69,182.91	\$ -
	8L	Salt Lake Academy High School	\$ 251,607.82	\$ 251,607.82	100.0%	\$ -	\$ 251,607.82
	97	Salt Lake Arts Academy	\$ 77,163.74	\$ 77,163.74	100.0%	\$ -	\$ 77,163.74
	4F	Salt Lake Center for Science Education	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
	6J	Scholar Academy	\$ 128,291.80	\$ 128,291.80	100.0%	\$ -	\$ 128,291.80
	89	Soldier Hollow Charter School	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
	3D	Spectrum Academy	\$ 296,580.45	\$ 296,580.45	100.0%	\$ -	\$ 296,580.45
	9K	St. George Academy	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
	A9	Success Academy	\$ 138,365.82	\$ 138,365.82	100.0%	\$ -	\$ 138,365.82
	A4	Summit Academy	\$ 483,358.22	\$ 483,358.22	100.0%	\$ -	\$ 483,358.22
	4D	Syracuse Arts Academy	\$ 409,491.46	\$ 409,491.46	100.0%	\$ -	\$ 409,491.46
	8J	Terra Academy	\$ 110,368.68	\$ 110,368.68	100.0%	\$ -	\$ 110,368.68
	2L	The Center for Creativity Innovation and Discovery	\$ 69,182.91	\$ -	0.0%	\$ 69,182.91	\$ -
	94	Thomas Edison	\$ 216,586.74	\$ 216,586.74	100.0%	\$ -	\$ 216,586.74
	2N	ThrivePoint Academy	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
	95	Timpanogos Academy	\$ 92,256.90	\$ 92,256.90	100.0%	\$ -	\$ 92,256.90
	7L	Treeside Charter School	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
	92	Uintah River High	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
	91	Utah Arts Academy	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
	9I	Utah Career Path High School	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
	2H	Utah Connections Academy	\$ 227,906.60	\$ 227,906.60	100.0%	\$ -	\$ 227,906.60
	1B	Utah County Academy of Science	\$ 87,351.62	\$ 87,351.62	100.0%	\$ -	\$ 87,351.62
	1I	Utah International Charter School	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
	2K	Utah Military Academy	\$ 219,416.71	\$ 219,416.71	100.0%	\$ -	\$ 219,416.71

	5F	Utah Virtual Academy	\$ 353,745.76	\$ 353,745.76	100.0%	\$ -	\$ 353,745.76
	8H	Valley Academy	\$ 138,365.82	\$ 138,365.82	100.0%	\$ -	\$ 138,365.82
	1K	Vanguard Academy	\$ 124,707.17	\$ 124,707.17	100.0%	\$ -	\$ 124,707.17
	3F	Venture Academy	\$ 147,912.90	\$ 147,912.90	100.0%	\$ -	\$ 147,912.90
	1N	Virtual Horizons Charter School	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
	2G	Vista School	\$ 205,266.88	\$ 205,266.88	100.0%	\$ -	\$ 205,266.88
	5I	Voyage Academy	\$ 99,803.47	\$ 99,803.47	100.0%	\$ -	\$ 99,803.47
	8I	Walden School of Liberal Arts	\$ 74,899.77	\$ 74,899.77	100.0%	\$ -	\$ 74,899.77
	7K	Wallace Stegner Academy	\$ 599,474.43	\$ 599,474.43	100.0%	\$ -	\$ 599,474.43
	4B	Wasatch Peak Academy	\$ 94,709.53	\$ 94,709.53	100.0%	\$ -	\$ 94,709.53
	5K	Wasatch Waldorf Charter School	\$ 121,311.21	\$ 121,311.21	100.0%	\$ -	\$ 121,311.21
	7I	Weber State University Charter Academy	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
	6G	Weilenmann School of Discovery	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
	8I	Winter Sports School	\$ 69,182.91	\$ 69,182.91	100.0%	\$ -	\$ 69,182.91
TOTALS			\$ 17,157,362.50	\$ 16,787,694.12	97.8%	\$ 369,668.38	\$ 16,787,694.12

USDB	Identifier (LEA ID)	LEA	Available	Total Funded	% Total Funded	Remaining	July
	41	USDB	\$ 46,653.11	\$ 46,653.11	100.0%	\$ -	\$ -
	TOTALS		\$ 46,653.11	\$ 46,653.11	100.0%	\$ -	\$ -

FY27 School LAND Trust Funding

Monthly Distribution Progress

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 Schools Not Funded in July..... 3

FY27 Funding Overview

Total Available Funding (see * note)	\$ 133,551,631.10
Charters (see * note)	\$ 17,295,728.32
Districts	\$ 116,209,249.67
USDB	\$ 46,653.11
Schools Eligible for Funding	1,024
Charters	150
Districts	873
USDB	1

This report summarizes the monthly progress of FY27 School LAND Trust funding distributions. Funding is distributed monthly to schools that have completed all program requirements for funding approval.

For detailed distribution calculations, funding status, and program requirements, please refer to the FY27 Distribution Workbook.

**Pursuant to Board direction, American Preparatory Academy LEA – American Preparatory Academy Eagle Mountain (150) will not receive its FY27 School LAND Trust allocation of \$69,182.91 due to the school's late notification of opening.*

In addition, Azure Fields Charter High School LEA - Azure Fields Charter High School - (700) will not receive its FY27 allocation of \$69,182.91 due to its delayed opening, which has been postponed from FY27 to FY28.

Because these allocations will not be distributed, they have been excluded from the statewide and charter funding totals shown in this report so that funding percentages accurately reflect expected distributions.

July 2026

Distribution Status

	Available Allocation	Distributed	% Distributed
Statewide	\$ 133,413,265.28*	\$ 131,034,852.24	98.2%
Charters	\$ 17,157,362.50*	\$ 16,787,694.12	97.8%
Districts	\$ 116,209,249.67	\$ 114,200,505.01	98.3%
USDB	\$ 46,653.11	\$ 46,653.11	100%
	Eligible Schools	Funded Schools	% Funded
Statewide	1,024	1,001	97.8%
Charters	150	146	97.3%
Districts	873	854	97.8%
USDB	1	1	100%

Notes

A total of **23** schools will not receive School LAND Trust funding in July. Of those:

- **8** are new and are not expected to submit requirements until November 1.
- **15** have outstanding program requirements and have received communication from our team.

Schools Not Funded in July

New Schools

LEA	School
Alpine District	Silver Peak School

Alpine District	ATEC West - (816)
Alpine District	Juniper Basin Elementary
Alpine District	Timpanogos Transitional Education Center - (817)
Cache District	Old Ephraim School
Cache District	Spring Creek Elementary
Wasatch District	Deer Creek High
Washington District	Utah Online 7-12

Schools with Outstanding Program Requirements

LEA	School
Academy for Math Engineering & Science	Academy for Math Engineering & Science
Renaissance Academy	Renaissance Academy
Roots Charter High School	Roots Charter High School
The Center for Creativity Innovation and Discovery	The Center for Creativity Innovation and Discovery
Beaver District	Milford High
Garfield District	Boulder School
Grand District	Grand County High
Granite District	Brockbank STEM Junior High School
Granite District	Granite Connection High
Granite District	Youth Educational Support School
Juab District	Juab High
Tintic District	Eureka School
Tintic District	Tintic High
Tintic District	West Desert High School
Tintic District	West Desert School

From: Kim Rodela <krodela@utah.gov>

Sent: Monday, August 3, 2026 12:46 PM

To: Sam Urie <Sam.Urie@schools.utah.gov>

Cc: Darcy Jaimez <djaimez@utah.gov>; Rebecca Nielsen <Rebecca.Nielsen@schools.utah.gov>; Sara Harward <Sara.Harward@schools.utah.gov>; Deborah Jacobson <Deborah.Jacobson@schools.utah.gov>

Subject: Re: Request for Information on Agency's Compliance with ARPA SLFRF Federal Funds Management

Dear Sam,

I am writing to formally convey the results of the Governor's Office of Planning and Budget's (GOPB) review process for the utilization of the ARPA Coronavirus State and Local Fiscal Recovery Funds (SLFRF) allocated to your agency.

The review, initiated on June 26, 2026 and concluded on August 03, 2026, aimed to assess the adherence of entity SLFRF expenditures to the [guidance](#) set forth by the U.S. Department of the Treasury (Treasury). I am pleased to inform you that, based on the information provided by the USBE and all other relevant data available to GOPB, your agency has been found to have utilized the SLFRF funds in strict accordance with the Treasury's guidance.

This email serves as the final letter summarizing GOPB's review process and that we report no findings of non-compliance or discrepancies in the utilization of the allocated funds.

Please be advised that while this letter concludes the current review process, GOPB remains committed to ongoing monitoring efforts. In the event that additional reviews are deemed necessary in the future.

Should you have any questions or concerns regarding the contents of this letter or the review process, please do not hesitate to reach out to me. Thank you for your cooperation throughout this process and we look forward to continued collaboration in the future.

Regards,
Kim Rodela



**Governor's Office of
Planning & Budget**

KIM RODELA | FISCAL GRANTS MANAGER

350 N STATE STREET #150 | SALT LAKE CITY, UT 84114

M (480) 329-9172 | krodela@utah.gov



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Sincerely,
Certification Department
Association of Certified Fraud Examiners
Global Headquarters • The Gregor Building
716 West Avenue • Austin, TX 78701
Tel: (800) 245-3321 / +1 (512) 478-9000
Fax: +1 (512) 276-8180
Exam@ACFE.com
[ACFE.com](https://www.acfe.com)



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Jeffery Wilcox

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Sincerely,
Certification Department
Association of Certified Fraud Examiners
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[ACFE.com](https://www.acfe.com)



UTAH STATE BOARD OF EDUCATION

Subject:

INFORMATION: Program Monthly Report (PMR) on the Utah Schools Information Management System

Agenda item type:

Information Item

Recommended Action:

The Finance Committee makes recommendations to the board of education as determined necessary and in order to ensure meeting the current requirement for capability on or before July 1, 2024.

Purpose of Memo:

Result of legislative action

Background:

The Utah Schools Information Management System (USIMS) is an ongoing project that will modernize USBE's legacy data systems and enable real-time access to and secure movement of data to support effective decision-making at all levels of the education system. Current code requires the Utah Schools Information System is capable of meeting requirements by July 1, 2024.

Contact:

Name:	Jared Felt	Scott Jones
Title:	Director of Information Technology	Deputy Superintendent of Operations
Phone:	801-538-7900	801-538-7514
Email:	jared.felt@schools.utah.gov	scott.jones@schools.utah.gov

Attachments:

1. USIMS_PMR_August2026

USIMS Program Management Review

Utah State Board of Education

August 2026

Executive Summary

Why USIMS Exists

USIMS was proposed to the legislature following an external study by the Division of Technology Services (DTS) recommending a build vs. buy implementation approach. Under this model, USBE contracts with external vendors to design and build a tailored solution rather than purchasing an off-the-shelf product. This approach was selected because no existing product could meet the specific data collection, reporting, and integration requirements of Utah's public education system at the scale needed to serve 155 Local Education Agencies statewide. The Utah State Board of Education manages education data for over 674,000 students and 45,000+ educators across 28 disparate legacy applications and subsystems. The three core legacy systems (CACTUS for educator licensing, UTREx for student data, and UPEFS for finance), along with their 25 associated subsystems, were developed on an ad-hoc basis over many years, lacked integration, and required ongoing maintenance and development resources to sustain.

These systems place a significant burden on both USBE staff and LEAs, requiring ongoing coordination to identify and correct data quality issues. SIS vendors lack sufficient validation rules on their end, which means errors in LEA data entry flow into the system and require manual remediation efforts on both sides to meet state and federal reporting requirements. Several of these systems are outdated in an absolute sense. CACTUS originated in approximately 1984, making it more than 40 years old at the time of retirement. UTREx was built around 2007. UPEFS is more than a decade old. These systems have long outlived their intended technology lifecycle and maintaining them grows more difficult and costly every year. USIMS was designed to subsume these legacy applications, modernize our technology infrastructure, and create a unified platform built on modern data standards through EdFi for all Local Education Agencies statewide.

The Critical Constraint

USIMS operates under a hard subsumption deadline. All three legacy systems must be retired and LEAs fully transitioned to USIMS by July 1, 2027, or state FTEs will be trapped in perpetual dual-system maintenance with no contractor support. Meeting this deadline requires ruthless prioritization of all program work directly toward legacy retirement.

Any new requirement introduced during the active transition period carries significant risk to this deadline, whether originating from legislative action, board rule changes, or stakeholder requests. When implementation timelines are short, new requirements must be built into legacy systems that are actively being retired and then built for a second time in USIMS. This creates duplicate work, duplicate cost, and diverts capacity from the retirement work required to meet the deadline. The funding appropriated for USIMS was scoped to cover the original program

requirements, and new requirements introduced beyond that original scope will require a separate funding request.

The 2026 legislative session has made this concern more immediate. Approximately 26 new pieces of legislation passed this session requiring changes to existing systems, many with immediate implementation timelines. This does not account for requirements introduced in prior legislative sessions, some of which were absorbed into development as work aligned naturally, while others remain in the USIMS backlog awaiting completion. Each of these requirements must first be built into legacy systems that are actively being retired and will then need to be incorporated into USIMS as part of the modernization effort. The cumulative effect of these additions increases both the cost and the resources required to complete USIMS within its original scope and funding. This growing backlog of legislatively mandated changes represents a direct threat to the July 1, 2027 retirement deadline and the program's ability to deliver within its appropriated budget. USBE Information Technology and USBE leadership share responsibility for consistently communicating this constraint to all stakeholders, both internal and external.

Program Status Overview

Funding Status

As of July 2026:

Funding Source	Allocated	Spent to Date	Encumbered	Uncommitted Remaining
State Funds	\$22,946,645.60	\$15,426,849.97	\$2,325,036.36	\$4,804,312.69
COVID Funds	\$16,300,000.00	\$16,308,265.98	\$0	\$0 (fully expended)
Total	\$39,246,645.60	\$31,735,115.95	\$2,325,036.36	\$4,804,312.69

Program Status by Domain

Educator Domain

What's Live

All prospective educators statewide now use USIMS for background checks, ethics reviews, professional license renewals, and license printing. Associate and LEA-Specific License renewals and printing are handled in-house. All ten university educator preparation programs are submitting licensure recommendations through the system.

What We're Building

The team continues to make measurable progress toward the August 17, 2026, General Release while maintaining operational stability and supporting critical statewide processes. A key accomplishment during this period was the successful management of the CACTUS rollover, including a planned USIMS outage and restoration that returned the system to service with minimal disruption. The team also proactively managed BCI requests during the CACTUS database downtime and quickly re-established the BCI connection, resulting in little interruption to the background check process.

In parallel, the team is completing and refining termination functionality by improving the workflow, business rules, and user experience for ending an educator's employment, so termination records are accurate, complete, and processed correctly throughout the system. This work is critical to general release readiness, and the team is working closely with the Focus Working Group and other stakeholders to finalize release plans, validate requirements, and ensure organizational readiness. As the August 17 release approaches, upcoming sprints will focus on completing the remaining release-critical work while delivering additional USIMS functionality that enhances the experience for educators and administrators.

Challenges and Risks

The volume of CACTUS features requiring migration remains the primary risk to meeting the July 1, 2027 legacy retirement date. The team is mitigating this risk through focused reorganization and continuous validation with stakeholders and subject matter experts as functionality is delivered.

In parallel, the team is prioritizing critical features over enhancements, completing essential requirements first while identifying workarounds for lower-priority requests.

Target Legacy Retirement Date: July 1, 2027

Student Domain

What's Live

All Student Backpack datasets are available to the 33 PowerSchool districts statewide. Aspire has added student growth scores to the assessment data already available for its 101 participating districts and continues to provide feedback to guide future enhancements. Student Backpack infrastructure has been delivered incrementally, with new capabilities released as SIS vendors make them available. Six of the eight SIS vendors are actively integrating and testing enrollment history, assessment, growth, demographic, and attendance data.

What We're Building

The Student Domain team remains focused on replacing UTREx functionality within USIMS, with priority placed on supporting LEA student record submissions and implementing initial data validation capabilities. This modernized architecture provides a scalable foundation for addressing current and future LEA data submission needs. While UTREx subsumption remains the primary focus, the team also continues to support SIS vendors with Student Backpack integrations and the resolution of critical issues.

Challenges and Risks

The Student Domain faces three primary risks. First, additional UTREx functionality continues to be identified during the replacement effort, primarily driven by new legislative requirements that expand scope beyond what was originally planned. Second, the need to accelerate USIMS development while simultaneously addressing critical Student Backpack SIS vendor integration issues can delay UTREx subsumption. Third, the volume and complexity of requirements continue to evolve as the team works closer to the retirement deadline, making it difficult to maintain a stable and predictable development path.

To mitigate these risks, the team conducts regular roadmap reviews, collaborates closely with UTREx Subject Matter Experts, and leverages AI-assisted analysis to refine requirements as thoroughly as possible before development begins. The team also maintains focused coordination with leadership, SIS vendors, and USBE stakeholders to ensure that only the highest-priority issues receive immediate attention while maximizing resources and allowing UTREx subsumption efforts to continue progressing as planned.

Target Legacy Retirement Date: July 1, 2027

Finance Domain

What's Live

USIMS Finance has implemented two ways for LEAs to view Budget and Actual submissions. First, USBE Finance and LEA users can view and filter accounts with actual and budget amounts directly in the USIMS interface, with data available in real time as submissions are received. Second, Power BI dashboards visualizing Revenue, Expenditure, and Balance Sheet submissions are in place and refresh hourly.

Eight vendors are connected to the Finance API. One vendor has successfully submitted data for their pilot LEA. Five vendors have submitted partial submissions and are working through ensuring all accounts and amounts are accurately submitted in USIMS. The remaining vendors have submitted individual accounts and are continuing their work to complete pilot LEA submissions.

The Finance team has also implemented a dedicated landing page in USIMS for Finance users and is sharing access to Chart of Accounts and Account Combination search functionality with Focus Working Group users while inviting them to create accounts and begin using the system.

What We're Building

The USIMS Finance team has completed Fund Accounting checks for LEAs and has begun work on Program Accounting checks, both of which are required for LEAs to certify their annual financial submissions to USBE. The team has also completed the Contract and Paid Termination Benefits components of Indirect Cost Adjustments, with demos to USBE Finance and the Focus Working Group scheduled in the coming weeks.

The team recently demonstrated how LEAs can submit documentation through USIMS to meet requirements for external audit submissions and Indirect Cost Proposals, with this functionality planned for promotion to production in the near future. To support parallel testing of LEA financials, USIMS will configure the production environment for third-party finance vendors to connect their LEAs beginning around November 2026.

Challenges and Risks

The Finance domain is moving at a deliberate pace given the scale of funding dependent on accurate data reporting. The Finance API supports reporting billions in federal and Utah funding across eight external vendors and all LEAs, and dependency on vendor timelines and data confirmation adds complexity to the implementation. Overall, vendors are behind schedule with their pilot submissions, though USIMS can alleviate this risk by condensing the timelines for parallel submission.

There remains a significant volume of Finance functionality still to be migrated into USIMS. While this is not an immediate crisis, it is something the team is closely monitoring as the retirement deadline approaches.

Target Legacy Retirement Date: End of FY 2027 to support Actual submissions by LEA

UTAH STATE BOARD OF EDUCATION

Subject:

INFORMATION: Program Monthly Report (PMR) on Utah Grants

Agenda item type:

Information Item

Recommended Action:

Information - no action.

Purpose of Memo:

Recommended by leadership

Background:

Utah Grants is the Electronic Grants Management System utilized by the Utah State Board of Education (USBE) for managing the full life cycle of grant funding. Utah Grants is used by USBE staff as well as LEAs and CBO partners for managing grant applications, awards, payments and monitoring activities. The USBE works closely with system developers to continue to meet the expanding needs of the agency, while maintaining proper safeguards in the use and distribution of grant funds. The monthly Project Management Report (PMR) is provided by the Grants Management team to account for project activities and priorities.

Contact:

Name: Rebecca Nielsen
Title: Grants Manager
Phone: 801-538-7666
Email: Rebecca.Nielsen@schools.utah.gov

Deborah Jacobson
Assistant Superintendent of Operations
801-538-7627
Deborah.Jacobson@schools.utah.gov

Attachments:

1. Utah Grants PMR Summary 080726
2. Utah Grants PMR 080726

Utah Grants Program Monthly Report

Utah State Board of Education Finance Committee

August 7, 2026

The Utah Grants team provides monthly updates to the progress of Utah Grants development for the Utah State Board of Education Finance Committee. Full presentation is provided quarterly. This update is intended to represent a brief summary of project milestones.

Updates Since the June Finance Committee Meeting

- Child Nutrition Programs – Paying through Utah Grants
 - Development work completed and available in production
 - June and July payments made through Utah Grants
- Ongoing Development –
 - FFATA Reporting Functionality – additional feedback has been provided to REI, expect final delivery August 2026.
- Looking Ahead – future work 2027 –Will require amended contract to continue development work.
 - GovGrants 3.0 Upgrade
 - Competitive Announcement Workflow Changes
 - USBE View Updates
 - Award Approval Workflow Changes
 - Payment Approval Workflow Changes
 - Budget Revision Workflow Changes
 - Site Visit Workflow Changes
 - Risk Assessment Workflow Changes
 - IDT Redesign

Rebecca Nielsen
Director of Grants Administration
Utah State Board of Education
📞 801-538-7666
✉ Rebecca.nielsen@schools.utah.gov

Utah Grants

Finance Committee Monthly Update

PROGRAM MONTHLY REPORT

AUGUST 7, 2026

REBECCA NIELSEN

DIRECTOR OF GRANTS ADMINISTRATION

Topics

- ▶ Contract Overview
- ▶ Development Work – Completed & In Progress
- ▶ Proposed Contract Amendments
- ▶ Future Work
- ▶ Timeline

Contract Overview



- ▶ Vendor: **REI Systems, Inc**
- ▶ Contract Period: 9/7/23 – 9/6/26
- ▶ Includes two 1-year renewal options

Released Development

2.1 Release Deployment

Work Item	Category	Issue
CNP Provider Payments	Efficiency	Incorporate Child Nutrition Program Awards and Payments into Utah Grants

Ongoing Development Planned for August 2026

Work Item	Category	Issue
FFATA Reporting Functionality	USBE User Experience, Federal Reporting Compliance	Build FFATA reporting interface with Sam.gov, automate federal reporting process

Proposed Contract Amendment



- ▶ Vendor: **REI Systems, Inc**
- ▶ Contract Period: 9/7/23 – 9/6/26 with renewal options
- ▶ Proposed Contract Amendment
 - ▶ Licenses 2026-2027
 - ▶ Licenses 2027-2028
 - ▶ GovGrants 3.0 Upgrade
 - ▶ USBE-directed ongoing development

Looking Ahead GovGrants 3.0



Areas	EGMS 3.0 - Lightning
Enhanced Performance	Much Faster Response and Page Load Time (60-80% faster)
More Intuitive	Shorter Learning Curve, Easier and quicker to Learn and Understand
Cleaner More Modern Interface	Modern interface with more granular control of screen configuration and display options
Improved Global Search	Searches in all Search results in tables increased by 5x (50k records).
Better Data Visualization	Usage of Lightning reporting - More dashboard types
Split Screen Usability	Can split view to show main record and related data
Sticky Filters / Screen Layout Settings	Filter, Navigator, and Collapse component applies throughout user session
Improved Global Search	Searches across all records, including in attachments / files. Search results increased to 50k records.
Usable Platform Features	Most platform features are natively usable with custom coding (e.g. Translation workbench, Duplicate rules, File previews, File versioning)
Mobile Ready	Better rendering on mobile browsers. Can extend to Mobile App.
Einstein AI Support	Next Best Action, Recommendation Builder, etc.
SunoAI Support Chatbot	SunoAI Chatbot – LLM end-user help desk
More Self-service screen design options	No-Code ability to change most screen parameters including screen layouts
Simpler Configuration	Lower level of effort for configuration -> Lower Cost
Consolidated, Simpler Codebase	1 language – Apex – Simpler to learn, simpler to enhance
New Salesforce Updates	Most enhancements to Salesforce are for Lightning platform
More Apps on Salesforce AppExchange	More apps, deeper integrations with more systems / drag and drop integration, newer versions

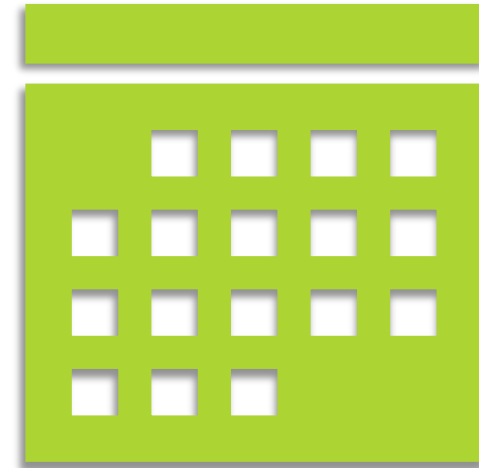
Looking Ahead

Proposed Upcoming work for 2026-2027

Work Item	Category	Issue
Competitive Announcement Workflow	LEA Feedback	Reconfigure competitive application workflow to reduce the number of clicks needed to apply for competitive grant
USBE View Updates	Budget Grid Updates	Improve USBE views for Use Cases Budget Grids, LEA-Initiated Waivers, Others
Award Approval Workflow Changes	Efficiency	Updates to award approval workflow, reducing number of approvers needed. Adds efficiency and reduces time to award activation
Payment Approval Workflow Changes	Efficiency	Updates to payment approval workflow, reducing number of approvers needed. Adds efficiency and reduces time to award activation
Budget Revision Workflow Changes	Efficiency	Updates to budget revision approval workflow, reducing number of approvers needed. Adds efficiency and reduces time to award activation
Site Visit Workflow Changes	Efficiency	Allows USBE to close site-visit findings, reducing the needed submissions and workflow of LEA users
Risk Assessment Workflow Changes	Efficiency	Add pre-determined user to Risk Assessment review
IDT Redesign	Efficiency	Redesign IDT (USBE internal inter-program transfer) functionality

Timeline

- ▶ FFATA updates planned for August 2026
- ▶ GovGrants 3.0 March 2027



Support

Utah Grants Help Desk

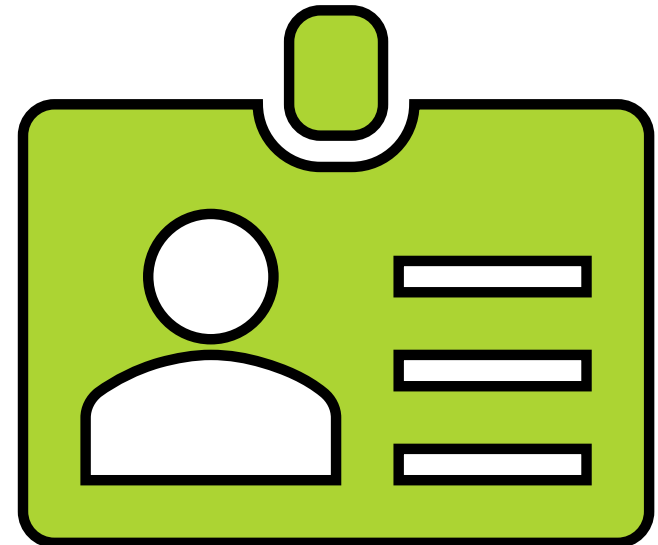
☎ 801-538-7604

✉ UtahGrants@schools.Utah.gov

Rebecca Nielsen, Dir Grants Admin

☎ 801-538-7666

✉ Rebecca.Nielsen@schools.Utah.gov



UTAH STATE BOARD OF EDUCATION

Subject:

INFORMATION: Public Comment

Agenda item type:

Information Item

Recommended Action:**Purpose of Memo:**

Committee request

Background:**Committee Meeting Public Comment**

The Utah State Board of Education (USBE) appreciates your interest in sharing your public comments.

Individuals who want to comment on a specific agenda item(s) during the committee meetings should contact Vanessa Hatton at Vanessa.Hatton@schools.utah.gov.

Public comment is at the discretion of the committee chair.

You are also welcome to send written comments to the Board at any time: board@schools.utah.gov. Please include the city where you live in your e-mail because your recognized board member may choose to reply personally.

Public Comment Disclaimer

1. Public comments are limited to 2 minutes per person.
2. A comment can express simple support or dissent about regulatory action. However, a constructive comment supported by evidence, data, and information is more likely to influence regulatory decision-making.
3. Individuals should not use the public comment to complain about personnel issues or attack or defame an individual.
4. Speakers making a highly detailed or complex comment should also consider providing a written outline of their words to the Board.
5. Please remember that children may hear your comments. Be thoughtful and professional.
6. Keep your comments appropriate for a general audience. If you have material with explicit language/content, submit such material in writing to the Board at publiccomments@schools.utah.gov

Contact:

Name: Vanessa Hatton
Title: Committee Secretary
Phone: 801-538-7550
Email: vanessa.hatton@schools.utah.gov

Attachments:

None

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: Amendment to Master Data Sharing Agreement with Utah Education Policy Center (USBE210089MA Amd. 2)

Agenda item type:

Action Item

Recommended Action:

That the Committee approve the second amendment the master data sharing agreement with the Utah Education Policy Center (USBE210089MA Amd. 2) and forward to the Board for approval.

Purpose of Memo:

Other

Background:

The Utah State Board of Education (USBE) has had a long-standing data sharing relationship with the Utah Education Policy Center (UEPC), which data sharing is documented in the current master data sharing agreement USBE210089MA. Under this agreement, UEPC conducts program evaluation and research on education programs in the state. USBE currently has several interagency agreements with UEPC for the purpose of program evaluation, most of which rely on this master data sharing agreement for the data sharing necessary to conduct the program evaluations.

Amendment 2 would extend USBE's master data sharing agreement with UEPC for one year. If approved by the Board, staff will work with the Utah Education Policy Center over the coming year to draft a new, updated agreement with the center.

Contact:

Name:	Katy Challis	Andrea K. Rorrer, Ph.D.
Title:	USBE Director of Privacy	Utah Education Policy Center, Director
Phone:	801-538-7894	801-243-5463
Email:	katy.challis@schools.utah.gov	andrea.rorrer@utah.edu

Attachments:

1. USBE210089MA - Utah Education Policy Center (UEPC)
2. USBE210089MA Amd. 1 - Utah Education Policy Center (UEPC)
3. USBE210089MA Amd. 2 - Utah Education Policy Center (UEPC)

Master Data Sharing Agreement (MDSA) between

Utah State Board of Education
and
Utah Education Policy Center

This Master Sharing Agreement ("Agreement") is entered into between the Utah State Board of Education ("Board" or USBE), and Utah Education Policy Center (UEPC).

WHEREAS, USBE has constitutional and statutory authority for the general control and supervision of the public education system pursuant to the Utah Constitution Article X, Section 3 and Utah Code Title 53A Chapter 1;

WHEREAS, the Parties have a valid mutual interest in USBE's disclosure and "UEPC" use of education records or personally identifiable information for the purpose of audit or evaluation of federal or state funded programs.

WHEREAS, the Board is subject to Federal Education Records Privacy Act (FERPA), 20 U.S.C. § 1232g and its implementing regulations, 34 C.F.R., Part 99, which generally requires written consent for disclosure of educational records or personally identifiable information to third parties;

WHEREAS, the information shared between USBE and "UEPC" will include education records with personally identifiable information;

WHEREAS, FERPA exception 20 USC 1232(g)(b) (choose A, B, C, D, E, or F) covers this situation and allows the sharing of the Personally Identifiable Information contemplated under this Agreement.

NOW THEREFORE, in consideration of the mutual promises contained herein, the parties agree as follows:

1. **Purpose:** The purpose of this Agreement is to facilitate USBE's ability to share data with "UEPC" for the purpose of audit or evaluations of federal or state funded programs.
2. The following Definitions apply to this Agreement:
 - a. "Education records" includes all information accessed, collected, stored, processed, disclosed, de-identified, created or used, including metadata and Personally Identifiable Information.
 - b. "Metadata" includes all information created manually or automatically to provide meaning or context to other data.
 - c. "Personally Identifiable Information" or "PII" includes both direct identifiers (such as a student's or other family member's name, address, SSN, student number, or biometric number) and indirect identifiers (such as a student's date of birth, place of birth, or

mother's maiden name). Indirect identifiers that constitute PII also include metadata about student interaction with an app or service, or other information that, alone or in combination, is linked or linkable to a specific student that would allow a reasonable person in the school community who does not have personal knowledge of the relevant circumstances to identify the student with reasonable certainty.

3. **Data Sharing:** It is understood and agreed that when USBE needs information from data maintained by "UEPC", that USBE and "UEPC" will securely send student level for the above stated purpose to be matched and that "UEPC" agrees that the sharing of data files, including derivative files, and data files resulting from merges, matches, or other uses of education records are subject to this Agreement.
 - a. *Disclosure of Data:*
 - i. *USBE may disclose personally identifiable information consisting of all data described in the accompanying Exhibit B.*
4. **Term.** This Agreement is effective for three (3) years from the date signed by the parties, unless terminated sooner in accordance with the terms and conditions herein. This Agreement may be renewed for a one-year period for two years thereafter if agreed to at least 30 days in advance of the term expiration date and in writing signed by both parties.
5. **Request for Data.** At the time a party requests data maintained by the other party, the description of the data to be shared and any additional terms relating to that data sharing shall be stated in a separate Data Request (Exhibit A), signed by the parties, that (1) is made subject to the terms of this Agreement; (2) specifies the personally identifiable information from education records to be disclosed; and (3) describes how the personally identifiable information from education records will be used with sufficient specificity to describe how the PII will be used and to make clear that the sharing of this data, including the PII, is within the purpose set forth in this Agreement. The persons who are authorized to sign the writing are:

USBE

Name:

Title: Superintendent of Instruction (or designee)

UEPC

Name: Andrea K. Rorrer, PhD

Title: Director, Utah Education Policy Center

6. **Confidentiality and Non-Disclosure.** The parties agree to use data only for those purposes described in this Agreement or as required by law and under the following conditions:
 - a. The parties shall have sufficient safeguards in place to ensure the data obtained is used only for the purpose stated in this Agreement.
 - b. Data in electronic format shall be stored and processed in such a way that unauthorized

persons cannot retrieve the information by computer, remote terminal, or any other means.

- c. The data shall not be stored on any server accessible by unauthorized personnel.
 - d. At the request of the donor party, the receiving party shall identify all personnel, by position, authorized to request and receive the data.
 - e. The parties shall limit access to, and use of, the data to only those persons who have a legitimate interest in the data provided under this Agreement, and shall do the following in regards to those individuals:
 - i. require a non-disclosure agreement to be signed by those persons;
 - ii. maintain past and current lists of all individuals to whom a party has determined to allow access to education records because the individuals have legitimate educational interest in the data and education records;
 - iii. maintain each non-disclosure agreement signed by its employees and shall permit inspection of the same by the other party upon request;
 - iv. notify the donor party in writing within 48 hours when an individual, who has had access to education records, is no longer with the receiving party;
 - v. notify the donor party in writing within 48 hours if an individual's privileges to access education records has been withdrawn and the date withdrawal occurred;
 - vi. shall not disclose the data or education records to individuals who have not been determined to have a legitimate educational interest, who have not received training, and who have not signed a non-disclosure agreement; and
 - vii. ensure that PII contained in the data is protected from further disclosure.
 - f. The parties will publish the results of their audits and evaluations in a way that protects the privacy and confidentiality of the students who were the subjects of the data that was provided. The parties will ensure that students cannot be directly or indirectly identified in published reports. For example, when publishing tables, cell suppression and other methods of disclosure avoidance will be used so that students cannot be identified through small numbers displayed in table cells.
7. **Data Security:** The parties will have whole disk encryption on computers used for accessing or storing reports from the data. Each party will limit access to the data using appropriate security controls in accordance with the most recent NIST 800-53 guidelines in transmitting, encrypting, storing, and maintaining data: <http://www.nist.gov/publication-portal.cfm>, and comply with the State of Utah Information Technology Resources Acceptable Use Policy found at: <http://dts.utah.gov/employee-state/statewide-dts-policies/index.php>.
8. **User Training:** The parties agree to train authorized users accessing information under this Agreement on relevant statutes prescribing confidentiality and safeguarding requirements, disclosure prohibitions, and penalties for unauthorized access or disclosure. The parties shall have the right to review disclosure training and request or suggest any changes necessary. The parties shall maintain past and current lists of individuals attending training and the related training materials.
9. **Additional Security Measures:** The parties shall:

- a. Store any data provided by the other party in an area that is physically secure from access by unauthorized individuals at all times.
- b. Maintain each other's data only until such time that the data is no longer needed for the specific purpose described in the applicable Data Request attached as Exhibit A, or upon termination of this Agreement, whichever occurs first. At that point, the data will be destroyed within 30 days, except for disclosed information possessed by any court.
- c. Refrain from duplicating the data other than as required for disaster recovery.
- d. Report any data breach to the party that provided the information immediately upon discovery and cooperate to mitigate any concerns.

10. Indemnity: To the extent that both parties to this Agreement are governmental entities as defined in the Governmental Immunity Act of Utah (U.C.A. 63G-7-101 et. seq.), nothing in this Agreement shall be construed as a waiver by either or both parties of any rights, limits, protections or defenses provided by the Act. Nor shall this Agreement be construed, with respect to third parties, as a waiver of any governmental immunity to which a party to this Agreement is otherwise entitled. Subject to and consistent with the Act, each party will be responsible for its own actions or negligence and will defend against any claims or lawsuits brought against it. There are no indemnity obligations between these parties. Nothing in this provision is meant to excuse either Party from statutory damages described under UCA 53A-1-1411.

11. Monitoring: The parties shall permit each other the right of a compliance review, no more frequently than once per calendar year, to ensure that the provisions of the Agreement are upheld and will maintain a system sufficient to allow an audit of its compliance with the disclosure and confidentiality and access to data sections above this Agreement. As an alternative, a party to be audited may furnish the results of a mutually agreeable 3rd party audit to the other party.

12. Amendments: This Agreement may only be amended by the mutual written agreement of the parties. No provision in this Agreement may be waived, except pursuant to a writing executed by the party against whom the waiver is sought to be enforced. Any such waiver shall not be construed as a waiver by such party of any subsequent breach under this Agreement.

13. Public Information: The parties agree that this Agreement will be a public document, and may be available in accordance with the State of Utah's Government Records Access and Management Act (GRAMA). Each party gives the other express permission to make copies of this Agreement in accordance with GRAMA.

14. Governing Law: This Agreement shall be governed by the laws, rules, and regulations of the State of Utah.

15. Assignment: Neither party may assign any of its rights under this Agreement, except with the prior written consent of the other party.

16. Independent Contractors: The parties are independent contractors, and no agency, partnership, joint venture or employee-employer relationship is intended or created by this Agreement. Neither party may take any binding action on the other party.

17. **Entire Agreement:** This Agreement constitutes the entire agreement between the parties and supersedes any and all other prior and contemporaneous agreements and understandings between the parties, whether oral or written

IN WITNESS WHEREFOR, the parties sign and cause this Interagency Agreement to be executed.

UTAH STATE BOARD OF EDUCATION *

By: *Ludlow Jackson*

Its: *State Superintendent*

Date *4/10/18*

Utah Education Policy Center

By: *Ludrea K. Raman*

Its: Director,

Date: 8/8/2017

Exhibit A

Data Request

Date of Request: August 8, 2017

TO:
Utah State Board of Education
Chief Privacy Officer:

From:

Requestor: Andrea K. Rorrer, PhD

Agency Name: Utah Education Policy Center

1. This Data Request is subject to the terms and conditions of that certain Master Data Sharing Agreement (MDSA) Between Utah State Board of Education and State Board of Regents dated August 8, 2017.
2. Description of data to be shared: Data include student data tables "a" through "u" and CACTUS data tables 1 – 38 (see attached USBE Data_UEPC Summary 2017_8_8 for detailed description).
3. Purpose of Sharing: The purpose of the data sharing is to conduct program evaluations and longitudinal research studies (see attached USBE Data_UEPC Summary 2017_8_8 for detailed purposes of sharing).
4. Specific duration of this sharing effort: August 8, 2017 to August 8, 2020

Approvals:

UTAH STATE BOARD OF EDUCATION

Signature: [Signature]
Date: 4/10/18

Utah Education Policy Center

Signature: [Signature]
Date: 8/8/2017

Non-Disclosure Agreement

This Agreement is made by the Utah State Office of Education (USOE) and the University of Utah, a body politic and corporate of the State of Utah, on behalf of its Utah Education Policy Center, hereafter known as "Researcher."

Whereas Researcher is organized for the purpose of improving the quality of educational policies, practices, and leadership in public schools and higher education and to increase educational access and opportunities for all children and adults; and

Whereas USOE desires to facilitate the conduct of research projects by Researcher that will provide benefit to USOE as it evaluates and improves all facets of the provision of education;

Now, therefore, the parties agree as follows:

1. USOE agrees to provide Researcher access to the following de-identified, coded microdata for teachers and students to enable Researcher to conduct research projects consistent with the provisions of this Agreement: all data gathered by USOE from districts and schools, including, but not limited to, data pertaining to schools, students, and educators, beginning with the year 2004. USOE shall update the data release at least annually. Hereinafter, to the extent that the data provided by USOE pursuant to this Agreement constitutes individually identifiable data, such data shall be referred to as "Subject Data." Data provided by USOE is "individually identifiable" to the extent that data in any subgroup contains information on ten (10) or fewer students.
2. Researcher agrees to preserve the confidentiality of Subject Data consistent with applicable law. Researcher will not report or publish Subject Data except as allowable with applicable law. Notwithstanding the foregoing, Researcher may utilize and maintain Subject Data in large-scale studies for aggregate level analysis and to maintain the reliability and validity of the data analyses.
3. Researcher agrees to utilize USOE data to perform research on behalf of USOE by (a) assisting in the development, validation, or administration of predictive tests, (b) administer student aid programs, or (c) improve instruction. USOE and Researcher agree that Researcher may utilize Subject Data to perform research addressing the following: teacher supply and demand; achievement gaps; the pipeline to post-secondary education; educational finance equity and adequacy; teacher, principal and school effectiveness; charter schools; class size; and district requested research. . In instances where Researcher-proposed studies fall outside the scope of the above-identified areas of research, a written addendum to this Agreement will be executed by the parties on a project-by-project basis.

4. Researcher agrees to not report or publish Subject Data in any manner that discloses students' identities in a manner that would violate the Family Educational Rights and Privacy Act (FERPA), 34 CFR 99-31 (a) (6), such as publishing performance data for subgroups of students with a count, also known as n-size, less than ten (10).
5. Researcher agrees to provide an electronic copy of each report or publication Researcher produces using Subject Data to Jennifer Lambert (contact) at the USOE at least 10 days prior to the public release. USOE acknowledges that Researcher may participate in presentations, symposia, and other similar events and that Researcher may use Subject Data in connection with such events or present materials produced using Subject Data at such events. The notification requirement contemplated by this section shall only apply to UEPC press releases, publications in journals or similar periodicals, and postings on a Web site maintained by UEPC provided that all other use is in compliance with FERPA and no individually identifiable information is shared in articles, presentations, symposia, or other similar events..
6. Researcher agrees that all data files including derivative files and all data files resulting from merges, matches, or other uses of the subject data provided by USOE with data from other sources are subject to this Agreement to the extent such files contain Subject Data.
7. Researcher agrees to limit and restrict access to the Subject Data to the following:
 - 7.1 Leaders in charge of the day-to-day operations of the research and who communicate with the contact person within USOE.
 - 7.2 Professional/Technical staff in charge of the research.
 - 7.3 Support staff including analysts, computer technicians, assistants, and secretaries, on a need-to-know basis.
8. Researcher agrees to notify and train each of its employees who will have access to Subject Data of the strict confidentiality of such data and shall require each of those employees to sign a Non-Disclosure Agreement.
 - 8.1. Researcher shall maintain each Non-Disclosure Agreement signed by its employees at its facility and shall allow inspection of the same by USOE within 10 days after USOE requests such an inspection.
 - 8.1 Researcher shall promptly notify USOE in writing when a Leader or Professional/Technical staff person has terminated, or access by specific staff members to Subject Data has been terminated, and give the date thereof.

8.2 Researcher agrees to notify USOE immediately in writing upon receipt of any request or demand by others for disclosure of the Subject Data.

8.3 Researcher agrees to notify USOE immediately in writing upon discovering any breach, or suspected breach, of security or any disclosure of Subject Data to an unauthorized party or agency.

9. Researcher agrees to retain the original version of the Subject Data at a single location and shall not make a copy or extract of the Subject Data available to anyone except individuals specified in paragraph 7.

9.1. Researcher agrees to ensure access to the Subject Data is maintained in computer files or databases in a secure physical location. The data are controlled by password protection and/or similar procedures designed to ensure that Subject Data cannot be accessed by unauthorized individuals.

9.2. To the extent consistent with applicable law, Researcher agrees to shred or destroy Subject Data, and all media used to transfer it from the USOE to Researcher, including all copies and derivative or merged files containing Subject Data, when maintenance of the Subject Data is no longer needed for the purposes for which research performed pursuant to this Agreement was conducted.

10. This Agreement shall terminate 72 (months) from the date it is signed. However, it may be extended by written agreement of the parties.

11. Any violation of the terms and conditions of this Agreement may result in the immediate revocation of this Agreement by USOE.

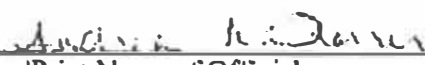
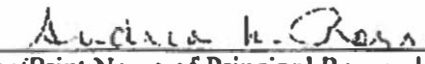
11.1. USOE may initiate revocation of this Agreement by written notice to Researcher indicating the factual basis and grounds of revocation.

11.2. Upon receipt of the written notice of revocation, the Researcher shall immediately cease all research activity related to the Agreement until the issue is resolved. The Researcher will have 5 business days to submit a written response to USOE indicating why this Agreement should not be revoked.

11.3. The USOE Data Governance Policy Board shall decide whether to revoke the Agreement based on all the information available to it. USOE shall provide written notice of its decision to the Researcher within 10 business days after receipt of the Response. These timeframes may be adjusted for good cause.

SIGNATURE PAGE

By signing below, the official of the Research Organization certifies that he or she has the authority to bind the Research Organization to the terms of this Agreement and that the Research Organization has the capability to undertake the commitments in this Agreement.

Location at which the subject data will be maintained and analyzed:	
Utah Education Policy Center, Annex 2654	
Signature of the Official of the Research Organization:	Date:
	2/9/10
Type/Print Name of Official:	E-mail:
Andrea K. Rorer	andrea.rorer@utah.edu
Title:	Telephone:
Director, Utah Education Policy Center	581-4267 801- 246 -2492
Mailing Address:	
1765 Campus Center Dr. Rm 339 Salt Lake City UT 84112	
Signature of the Principal Research Analyst:	Date:
	See above
Type/Print Name of Principal Research Analyst:	E-mail:
See Above	
Title:	Telephone:
Mailing Address:	
Signature of Utah State Board of Education/USOE Contact:	Date:
	2/9/10
Type/Print Name of USOE Contact:	E-mail:
Jennifer Lambert	jennifer.lambert@schools.utah.gov
Title:	Telephone:
Data Quality Manager	801-538-7731

AMENDMENT #1
to Extend Term

This Amendment is made to that USBE Application for Master Data Sharing Agreement previously executed by and between the Utah State Board of Education and Utah Education Policy Center, with effective date of August 8, 2017.

It is mutually understood and agreed by and between the undersigned contracting parties to amend that previously executed Agreement effective 10/25/2021 as follows:

Exhibit A (4) - Specific Duration of Sharing Effort is hereby amended to extend the term of this Agreement through **September 30, 2026**

All other terms and conditions that are not hereby amended are to remain in full force and effect.



10/20/2021

Andrea Rorrer, Ph.D.
UEPC Authorized Representative

Date

Dickson,
Sydnee



Digitally signed by Dickson,
Sydnee
Date: 2021.10.25 14:47:49
-06'00'

Sydnee Dickson, Ed.D.
Utah State Superintendent of Public Instruction

Date

Amendment to Master Data Sharing Agreement

Utah State Board of Education

AMENDMENT NUMBER

Amendment: **2**

To Agreement: **USBE210089MA**

PARTIES

TO BE ATTACHED TO AND MADE A PART OF the above numbered agreement by and between the **Utah State Board of Education**, referred to as "**State Entity**" or "**USBE**" and **Utah Education Policy Center** or "**UEPC**", each individually a "**Party**" and together the "**Parties**".

THE PARTIES AGREE TO AMEND THE AGREEMENT AS FOLLOWS:

AGREEMENT PERIOD:

Original Effective Date: **April 10, 2018**

Current Termination Date: **September 30, 2026**

New Termination Date (enter "N/A" if not applicable): **September 30, 2027**

OTHER CHANGES: (attach additional pages as necessary)

None

EFFECTIVE DATE:

September 7, 2026

All other conditions and terms in the original agreement and previous amendments remain the same.

SIGNATURES OF APPROVAL

THE PARTIES, INTENDING TO BE LEGALLY BOUND, have executed this amendment on the date first set forth above.

PARTY 1 (USBE)

Name: Molly Hart, Ed.D
Title: State Superintendent of Public Instruction
Signature: _____
Date: _____

PARTY 2 (UEPC)

Name: Andrea K. Rorrer, Ph.D.
Title: Utah Education Policy Center Director
Signature: _____
Date: _____

CONTACT PERSONS

PARTY 1 (USBE) CONTACT PERSON

Name: Katy Challis
Title: Director of Privacy
Phone: 801-538-7894
Email: katy.challis@schools.utah.gov

PARTY 2 (UEPC) CONTACT PERSON

Name: Andrea K. Rorrer, Ph.D.
Title: Utah Education Policy Center Director
Phone: 801-243-5463
Email: Andrea.rorrer@utah.edu

UTAH STATE BOARD OF EDUCATION

Subject:

INFORMATION: Utah Professional Practices Advisory Commission (UPPAC) Update **Time Certain**
9:00 AM

Agenda item type:

Information Item

Recommended Action:**Purpose of Memo:**

Other

Background:

This information item will provide an overview of the final decision-making process in UPPAC matters, including the role of the Attorney General's Office in supporting Board review and final action.

Contact:

Name:	Darin Goff	Lora Cooper
Title:	Division Director, Education Division at Utah Attorney General's Office	Assistant Attorney General
Phone:		
Email:	dgoff@agutah.gov	Lora.Cooper@schools.utah.gov

Attachments:

None

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: Alcott Learning EPP Application

Agenda item type:

Action Item

Recommended Action:

That the Committee approve Alcott Learning to be an approved Educator Preparation Program, and recommend approval by the Board.

Purpose of Memo:

Other

Background:

USBE staff received an application from Alcott Learning, a for-profit business entity, to be an approved APPEL program. R277-303 does not contain provision for approval of a for-profit business entity. Staff requests that the Board review Alcott's request and provide direction on whether the rule should be amended to include this type of entity. Additionally, Alcott Learning requests the committee approve their program application.

Contact:

Name:	Ben Rasmussen	Elizabeth Quist	Lisa McLachlan
Title:	Director of Law and Professional Practices	CEO & Founder, Alcott Learning	Educator Preparation Coordinator
Phone:			
Email:	Ben.Rasmussen@schools.utah.gov	liz@alcottlearning.com	Lisa.McLachlan@schools.utah.gov

Attachments:

1. Alcott Learning Appeal Email
2. Updated Alcott Learning APPEL Program Application
3. Alcott Learning - APPEL Approval Review Sheet
4. Potential association - Ignite Entrepreneurship Academy
5. Potential association -Canyon Grove Academy
6. Potential association - Utah Charter Network

Benjamin Rasmussen

From: Liz Quist <liz@alcottlearning.com>
Sent: Tuesday, August 4, 2026 2:21 PM
To: Lisa McLachlan
Cc: Josh Black; Benjamin Rasmussen
Subject: Re: Denied Alcott Learning APPEL Application

You don't often get email from liz@alcottlearning.com. [Learn why this is important](#)

We would like to request an appeal to address the concerns. Thank you! Liz Quist

On Aug 4, 2026, at 2:18 PM, Lisa McLachlan <Lisa.McLachlan@schools.utah.gov> wrote:

Hi Liz and Josh,

This email is to notify you that USBE staff have reviewed the Alcott Learning APPEL Application you submitted and have denied your application for the following reasons:

1. Your entity does not meet the definition of Educator Preparation Program in R277-303. Board rule says a program is developed by or associated with an institution of higher education, individual LEA, a consortium of LEAs, or the Board. Your entity is not an LEA or appear to have an association with an LEA, an consortium of LEAs or the Board.
2. The program's application intends to place candidates in clinical experiences that include "non-traditional settings" and "multi-state clinical experience". Board rule limits clinical experience settings to "preK-12 classroom settings" (R277-303).

Attached you will find a summary of our review. Per Board Rule 277-303, you may appeal this decision to the Board by submitting a written appeal to the Board Secretary. If you wish to appeal this decision, please reply to this email and I will forward the reply to the appropriate staff. Let me know if you have any questions.

Thank you,

Lisa McLachlan

Educator Preparation Coordinator

Utah State Board of Education (USBE)

Lisa.McLachlan@schools.utah.gov

(801) 538 – 7772

<Alcott Learning - APPEL Approval Review Sheet.pdf>

Alcott Learning Education Prep Program

Proposed Education Prep Program for Utah Educator Licensure

Elizabeth Quist

1. Program Vision and Overview
 2. APPEL Leadership Team
 3. Candidate Initial Evaluation
 4. Professional Learning Plan
 5. Utah Effective Teaching Standards (UETS) and Educator Competencies
 6. Content-Specific Competencies
 7. General Teacher Preparation Competencies
 8. Clinical Experience/Fieldwork Overview and Competencies
 9. Program Mentoring
 10. Teacher Dispositions
 11. Remediation
 12. Record Management
 13. Personnel Professional Development and Staffing
 14. Appendices
-

1. Program Vision and Overview

Alcott Learning is a for-profit Utah limited liability company focused on principle-based, rigorous learning rooted in character development, enduring principles of education and human development, and real-world application. The company was originally established to provide courses and coaching on the developmental phases of education, an area we found was often missing from the preparation of homebased education families and educators in general. We now hope to expand Alcott Learning's offerings through the proposed Educator Preparation Program outlined below.

The principles taught through Alcott Learning were developed and refined over more than 20 years and were used extensively to train staff in a previous venture in which members of our team co-founded and led a small network of highly successful schools in Utah. After years of applying this approach and exploring how to strengthen teacher preparation more broadly, we believe the educator

preparation program outlined in this proposal is the most meaningful way to expand this work. It is also a natural fit with Utah's competency-based approach to licensure, which allows us to honor prior experience while maintaining rigorous expectations for demonstrated readiness to teach. Through our courses, coaching, and other successful educational ventures, we have already served thousands of educators, parents, and students. We now hope to build on that foundation and become even more effective in helping educators create high-quality learning experiences.

Through the educator preparation program outlined in this proposal, we hope to offer a smarter, more effective approach to teacher licensure that maximizes the potential of the competency-based framework established by the Utah State Board of Education, with particular strength in serving school-choice environments.

Guided by a team with deep experience in teacher preparation, curriculum design, school leadership, technology, product design, and entrepreneurship, the program will offer a smarter licensure pathway and a seamless experience for candidates. The program will provide high-quality training that is closely aligned with what is actually happening in classrooms today, while maintaining rigorous expectations and clear, well-documented evidence of candidate competency. The program is intended to serve aspiring and current educators in Utah, schools seeking effective licensure support, and candidates in other states, particularly those participating in the Interstate Teacher Mobility Compact.

While we hope to add value to any school in need of teacher preparation support, a key distinction of the Alcott Learning program will be its openness to, and deep experience with, school-choice environments, including charter schools, private schools, microschools, hybrid programs, and other innovative educational models. To our knowledge, this breadth of school-choice expertise, and the intentional inclusion of these environments in the program's learning content, is not currently a central feature of other educator preparation programs.

As a vendor, we also aim to provide partner schools with a seamless process for supporting candidates from admission through licensure recommendation. In meetings with leaders from several Utah charter schools of varying sizes, we have heard strong interest in this type of partnership and a clear desire for additional support in navigating the administrative, and compliance responsibilities involved in managing licensure pathways internally. Members of our team have served as local charter school executive directors, so we understand these needs firsthand.

Alcott Learning also plans to partner with colleges and universities as a vendor, providing licensure support for institutions seeking to expand the pathways available to their students. This model could allow students to complete their academic

degree through the college while accessing Alcott Learning's specialized teacher preparation and a clear route toward licensure. We are currently in conversation with two universities about potential partnerships. One intends to maintain its existing successful licensure program while exploring Alcott Learning as a complementary pathway for students in its classical education degree program.

In addition to the USBE-approved licensure pathway, Alcott Learning plans to make selected non-licensure training available to homeschool parents, curriculum and education product designers, education technology companies, and other individuals and organizations seeking to improve the quality of the learning experiences they provide. Many of these audiences have already engaged with our online courses and educational content. One of the nation's leading toy companies reached out to share that they follow our social media and have learned from our approach. Designing courses that must stand on their own value and attract learners regardless of whether they intend to pursue licensure will help ensure that the training remains practical, engaging, and exceptionally high quality.

The program will also serve individual candidates at a variety of stages, including career changers, recent graduates, current college students, and educators already working in schools. Candidates may have the opportunity to pursue licensure portability across participating states through the Interstate Teacher Mobility Compact, with guidance related to reciprocity, documentation, and alignment with varying state requirements. We will create targeted marketing campaigns to reach out to these potential candidates. It is also designed to support broader professional mobility.

The result is an Alcott program that removes unnecessary barriers to licensure while maintaining a high standard for candidate screening, program security, and documented readiness; fully leverages Utah's competency-based framework as intended; and prepares talented educators not only to qualify for licensure, but to lead effectively across a wide range of learning environments.

Core Program Design Principles

Competency-Based, Personalized Pathway:

Built on Utah's competency-based licensure model, candidates progress by demonstrating mastery, not seat time. Clear evaluation systems identify existing strengths and gaps, creating a tailored pathway that is efficient, precise, and focused on the remaining gaps.

Streamlined, Technology-Enabled Experience:

Our program is designed to provide a streamlined, clearly structured experience for

both candidates and administrators. By absorbing much of the administrative and regulatory workload, Alcott Learning will help reduce the burden on partner schools and institutions. Clearly defined systems and procedures, transparent competency tracking, and the intentional use of technology will reduce complexity, enable real-time progress monitoring, ensure complete and accurate documentation, and support candidates smoothly from admission through licensure recommendation.

Deep, Principle-Based Preparation:

Preparation goes beyond minimum standards by grounding candidates in time-tested principles of education, many of which have been lost or diminished, along with developmental phases of learning and brain development and research-informed practices. Candidates learn how student needs and effective instructional approaches change across developmental stages, helping them understand not only what to do, but why it works, when it is appropriate, and how to apply it effectively in real classrooms. Delivered through a streamlined, personalized approach, this reflects the same high-quality training we have used to develop our own faculty in past ventures.

Designed for School Choice but Effective Across School Settings

Candidates are prepared to succeed across a wide range of settings through time-tested principles, sound educational practices, and meaningful data, including traditional public schools, charter schools, microschools, hybrid programs, and classical or leadership-based models. Developed with input from school leaders, the program aims to help schools prepare, develop, and advance educators serving both established and innovative learning communities.

Although many traditional public schools have established educator pipelines, the program aims to prepare excellent candidates for those schools as well. While our initial niche will likely be school choice environments, where the need is especially significant, the program's broader goal is to become a trusted source of well-trained teachers, elevate the quality of teaching, and support school leaders across all educational settings. The program's preparation is currently designed to be broadly applicable, and we believe candidates completing the program in its current form will be well prepared to succeed in traditional public school environments, as well.

The Alcott Educator Preparation Program Overview

Alcott Learning will offer a full Educator Preparation Program with a comprehensive suite of teacher preparation courses and clinical experiences aligned with Utah State Board of Education competencies. Candidates who successfully demonstrate mastery of all required competencies may be recommended for licensure.

The program will provide flexible, competency-based pathways to Utah teacher licensure while preparing educators to succeed in a wide range of learning environments. Coursework will be intentionally aligned with the expectations of high-quality teaching, with an anticipated program launch in Fall 2026.

Candidate Journey

The program will be structured around a clear candidate journey aligned with Utah APPEL requirements:

1. Admission and initial evaluation
2. Development of an individualized Professional Learning Plan (PLP)
3. Completion of identified coursework and clinical experiences
4. Ongoing progress monitoring, mentoring, and support
5. Final verification of competencies for licensure recommendation

At each stage, the program will use documented evidence, mentor feedback, administrator input, and aligned evaluation tools to ensure that candidates are progressing toward full readiness for Utah licensure.

This process will allow Alcott Learning to personalize preparation based on each candidate's prior experience and identified needs while maintaining clear expectations, rigorous oversight, and alignment with Utah educator preparation requirements, including the Utah Effective Teaching Standards and all required competencies.

Utah-Based and Online Operations

The program will maintain a physical location or primary headquarters locally in Utah to support program delivery, participant services, and administrative functions. Operations will comply with applicable requirements related to zoning, safety, data privacy, and Board Rule R277-303.

Candidates may participate through online or blended delivery options:

- **Online candidates** will participate fully in virtual coursework and program activities.
- **In-person candidates** will participate in a blend of live and online learning.
- **Clinical experiences** will be completed in person for all candidates.

Business Entity Information

Alcott Learning, LLC is an active and current UT LLC registered with the Department of Commerce (Entity ID 14709979-0163).

Alcott Learning Addresses

Alcott Learning has established a partnership with Ignite Entrepreneurship Academy, a local charter school in Lehi, led by Executive Director Heidi Long, to provide space for live program activities. The facility includes a large classroom and a small kitchen, offering a well-suited environment for adult learners. This partnership also provides an opportunity to support the charter school through a \$50 facility-use payment for each use. The arrangement may be verified with Heidi Long at HLong@IgniteUtah.org or (801) 901-8520.

Physical Location for Live Courses

Ignite Entrepreneurship Academy
1650 W. Traverse Terrace Drive
Lehi, Utah 84043

Mailing Address

7533 S. Center View Court, #8055
West Jordan, Utah 84084

Competency Tracking and Progress Monitoring

The program will implement a clear, transparent competency-tracking system designed for usability rather than unnecessary complexity. Candidates will be able to view their progress in real time, strengthening clarity, accountability, and ownership of their learning.

Regular reviews of each candidate's Professional Learning Plan will help ensure that candidates remain on track, required documentation is complete, and targeted support is provided when needed. Program administrators, mentors, and candidates will use shared systems and aligned evidence to monitor progress from admission through final licensure recommendation.

The Alcott Name

The name Alcott Learning is inspired by Louisa May Alcott and Amos Bronson Alcott. The Alcotts cultivated an environment of intellectual rigor and moral purpose and were closely connected to many of the leading thinkers of their time.

While the program does not seek to replicate Bronson Alcott's specific methods, the name reflects a shared commitment to courage, conviction, and forward-thinking

education grounded in enduring principles, rich texts, curiosity, and a lifelong love of learning.

2. APPEL Leadership Team

Adopting the model program framework.

While we will be starting small, we have a large network with educators who we have reached out to to ask if they would be interested in joining our team as we grow. During initial launch, some roles will be held by the Program Director. As enrollment grows, responsibilities will be distributed across trained staff to ensure appropriate separation of duties, scalability, and program integrity.

Program Director - Elizabeth Quist brings over 20 years of experience in education reform, teacher development, and leadership-based learning models. She co-founded the middle school program at Williamsburg Learning, known in Utah as Leadership Academy Utah (LAU), a liberal arts and leadership-focused school, and served as Executive Director of the 6th–12th grade programs for seven years. During her tenure, she built and led high-performing academic teams, hired and mentored over 100 educators, developed and implemented innovative leadership and curriculum programs, and created a comprehensive professional development system with weekly, yearly, and individualized learning tracks for both new and experienced teachers.

She currently operates two education-based businesses: Alcott Learning, which presently offers online courses for parents and is seeking approval to expand through the Educator Preparation Program through this application, and Inkwood Scholars, a live online liberal arts program for high school students. She also serves as an award-winning adjunct instructor at Ensign College, where she teaches entrepreneurship and develops courses for both Ensign College and the worldwide BYU–Pathway curriculum. Her experience includes extensive curriculum and course development, competency-based program design, and both K-12 and higher education instruction, with her teaching and courses consistently receiving some of the highest ratings possible from students.

In addition, she has consulted with American Heritage Schools, advising its leadership on the development of its online program, as well as with educational technology companies. She has spoken at multiple education conferences, including the Nevada Charter School Conference and the local Utah Charter Network (UCN) Conference.

Her work has consistently focused on teacher and leadership development, school choice learning environments, learning innovation, and sharing best practices, alongside her own award-winning teaching.

- **Transcript Reviewer** - Elizabeth Quist
- **Pedagogy Consultant** - Elizabeth Quist
- **Content Consultants** - We are currently identifying qualified educators and subject-area experts who may be able to serve as content consultants as the program grows and additional support is needed.
- **Plan Writer** - Elizabeth Quist
- **Clinical Experience Coordinator** - Elizabeth Quist
- **Progress Monitor** - Elizabeth Quist

Extended Educator Network: Through our work, we have developed an extensive network of several hundred educators in school choice environments. From this network, five licensed educators have already expressed strong interest in joining the program upon launch.

Advisory, Technical and Operational Support

Erin Mwanje – Instructional Design Advisor and Mentor

Erin Mwanje is a graduate of the Harvard Graduate School of Education and an experienced instructional designer with more than a decade of experience in education and program development. She co-founded Leadership Education Uganda (LEU), where she developed teacher training programs serving educators across Africa. Her expertise includes curriculum design, instructional systems, and scalable educator training models.

Josh Black – Financial, Technology, and Operations Advisor

Josh is a Caltech graduate with over 20 years of executive leadership, operations, and technology experience. Josh is known for building disciplined operating systems that translate strategy into consistent, accountable execution. He has successfully led and scaled a company to seven-figures in annual revenue. He has also served as a Director of Product Development for multiple technology companies, overseeing compliance-focused systems in regulated environments. He has led technology transformations and operational turnarounds, moving organizations from fragile, ad hoc delivery models to stable, metrics-driven performance through governance, process redesign, and automation. Within the Education Preparation Program, he will provide oversight of financial planning, technology infrastructure, compliance frameworks, and operational systems, ensuring fiscal responsibility, regulatory integrity, and sustainable growth aligned with measurable institutional outcomes.

3. Candidate Initial Evaluation

Adapt: Using the model program framework with the following adaptations:

Application and Admission Requirements

Admission to the Alcott Educator Preparation Program is intended for individuals who are prepared to meet a high standard of academic readiness, professional responsibility, and educator integrity. We seek candidates with the judgment, communication skills, character, and commitment necessary to earn the trust of students, families, schools, and the profession. Applicants pursuing a standard Utah teaching license must hold, or be on track to complete, a bachelor's degree before licensure recommendation, except where an approved CTE pathway allows a qualifying industry credential to meet that requirement. They must also pass the required Utah educator background check, provide sufficient evidence for the program to evaluate their prior preparation and remaining competency needs, and fully participate in all assigned coursework and clinical experiences.

Candidates will submit an application for admission that includes the following components. The process is designed to provide a high level of due diligence, candidate screening, and program security.

Application Requirements Overview

- Verifiable Identity and Contact Information
- Agreement to Alcott Program Policies
- Education Transcripts
- Background Check Acknowledgement
- Recorded Media Statement of Intent
- Employment or Character Reference
- Alcott Commitments to Educator Integrity
- Ongoing Evaluation of Professional Dispositions

Explanation of Application Requirements

Verifiable Identity and Contact Information

Applicants must provide accurate legal identity and current contact information that can be independently verified. This information must remain current throughout the application and enrollment process. Applicants must be at least 18 years old at the time of application and may be required to provide documentation verifying their age.

Agreement to Alcott Program Policies

Applicants must review and agree to follow all applicable Alcott Learning policies, procedures, participation requirements, and clinical-site expectations as a condition of enrollment and continued participation.

Education Transcripts

Applicants may submit unofficial college transcripts for the initial application review. Official transcripts must be provided within 90 days of enrollment and before the candidate may be recommended for licensure.

Candidates may also submit additional transcripts, course descriptions, syllabi, training records, licenses, certifications, and other evidence of prior learning or demonstrated competency to determine whether particular program requirements have already been met.

Background Check

Enrollment is contingent upon the creation of a USIMS account and successful completion and clearance of the required Utah educator background check through the Utah State Board of Education. During the application process Candidates will acknowledge this background screening requirement, but will only move ahead with the screening if accepted to the program. Alcott Learning is also exploring the feasibility of adding additional screening measures in the future, such as third-party social media screening, to identify publicly available information that may raise concerns related to professional dispositions, judgment, conduct, or suitability for work with students. Any enhanced screening adopted by the program would be clearly defined, legally reviewed, applied consistently to all candidates, and limited to information relevant to professional dispositions, educator readiness, and the safety of students, schools, and program partners.

Recorded Media Statement of Intent

Applicants will complete a recorded statement of intent describing their motivations, professional goals, and reasons for pursuing teaching. The program may allow this

requirement to be completed through a video submission, an audio recording, or a structured interview platform that presents questions and records the applicant's responses. The submission will help the program assess communication skills, professional presence, commitment to education, and initial evidence of dispositions such as responsibility, reflection, respect for students, openness to feedback, and readiness to work in a professional educational setting.

Employment or Character Reference

Applicants must provide at least one professional reference or, when needed, an appropriate character reference who is not an immediate family member and knows the applicant well enough to comment on their dispositions such as reliability, integrity, judgment, communication, respect for others, openness to feedback, and emotional maturity. They may be asked to provide specific examples, identify concerns, and describe how the applicant responds to responsibility, correction, conflict, and challenging situations. We are developing a standardized rubric to allow us to add this information consistently to our own observations and assessment.

Given the increasing ease of generating false or misleading information through artificial intelligence, applicants must provide sufficient information for the program to independently verify each reference's identity and relationship to the applicant, such as an organization name, official website, or public directory. Alcott Learning will independently verify references to confirm their identity, clarify responses, or gather additional evidence, as needed.

Alcott Commitments to Educator Integrity

Alcott Learning is developing a set of professional conduct commitments that will complement and reinforce the educator ethics rules and professional standards established by the Utah State Board of Education. Their purpose is to ensure that candidates enter the program with a clear understanding of the level of character, responsibility, and professional commitment expected of them and ultimately enter the profession as exceptionally well-prepared, trustworthy, and high-quality educators.

The commitments will emphasize both public and private virtue, recognizing that professional excellence is shaped not only by outward compliance, but also by the integrity, judgment, self-discipline, and character candidates bring to their work. Once finalized, applicants will be required to review, acknowledge, and agree to these commitments as a condition of participation in the program.

The commitments will clarify Alcott Learning's expectations related to professionalism, confidentiality, student safety, appropriate boundaries, respect for

students and families, responsible use of authority, and ethical conduct. These expectations will be introduced at the beginning of the program, reinforced throughout coursework and clinical experiences, and considered in the ongoing evaluation of each candidate's dispositions and readiness for licensure recommendation.

Ongoing Evaluation of Professional Dispositions

Professional dispositions will be evaluated through multiple sources, which may include references, recorded statements or interviews, clinical experiences, coursework, ongoing participation in the program, and, if implemented, a third-party review of publicly available online or social media information. The program will use an internal standardized rubric to assess patterns of conduct related to dispositions such as reliability, integrity, professional judgment, respect for students, colleagues and parents, communication skills, responsiveness to feedback, appropriate boundaries, responsibility, commitment to student growth, connection, and other relevant professional dispositions across multiple data points. Dispositions will be formally assessed at two points: during the application process and following completion of any required clinical experience.

Transcript and Evidence Review

The program conducts a comprehensive review of each candidate's prior coursework, evidence of competency, and supporting documentation to determine which content and pedagogical competencies have already been met.

This process includes:

Transcript and Documentation Review

Official transcripts, Altitude records, if applicable, and any relevant endorsement documentation are reviewed in alignment with Utah State Board of Education guidelines.

A bachelor's degree is required for licensure for all candidates seeking a Utah teaching license, except where a specific CTE licensure pathway allows a qualifying industry license, certification, or equivalent credential to meet the requirement.

Demonstration of Evidence

Alcott Learning seeks to provide flexibility for candidates who enter the program with prior teaching or instructional experience. Evidence from that experience may be

accepted when it clearly demonstrates that the candidate has already met a required competency. Prior experience alone will not be sufficient; the candidate must provide verifiable evidence that directly shows competency. When the evidence is sufficient, the competency may be accepted as met and documented in the candidate's Professional Learning Plan

The program will distinguish between Application Competencies and Demonstration Competencies as follows:

Application Competencies

Application Competencies may be verified during the Initial Evaluation through the following methods, consistent with Board Rule R277-304:

- Candidate interview and discussion
- Submitted artifacts, such as lesson plans, assessments, and unit designs
- Evidence from prior teaching or instructional experience

If sufficient evidence is provided, the competency will be marked as met, with the date of verification recorded in the Professional Learning Plan and supported by verifiable documentation.

Demonstration Competencies

Demonstration Competencies must be verified through observed performance in a classroom setting, consistent with USBE requirements. These competencies may be satisfied through:

- Documented prior teaching experience
- Direct observation during the candidate's clinical experience

The program will review all evidence through a formal review process using aligned evaluation tools to determine whether competencies have been met or whether additional clinical experience is required. Verified evidence may be used to inform and potentially reduce required clinical experiences.

If sufficient verifiable evidence exists, the competency will be marked as met, with the date recorded in the Professional Learning Plan. If sufficient evidence is not available, the competency will be completed through structured clinical experiences.

Pedagogy Review

Coursework related to instructional practices and teaching methods will be analyzed. When needed, course descriptions and syllabi will be collected to accurately map completed work to required competencies.

Verification

Consultants may collaborate with USBE specialists when necessary to ensure accurate interpretation of coursework and alignment with state requirements.

Program Acceptance Decision

After reviewing application materials, candidates are notified of the admission decision, and if accepted, will receive a personalized estimate of the scope, timeline, and cost required for licensure recommendation.

The selection process is designed to identify high-quality candidates through evaluation of:

- **Foundational Academic Skills:** Evidence of academic success and readiness in reading, writing, and mathematics will be demonstrated through college transcripts showing completion of a bachelor's degree or higher. Applicants who have not yet earned a bachelor's degree must be enrolled in an approved college or university program and may be asked to provide a current transcript showing coursework completed to date or provide a high school diploma, transcript or SAT or ACT scores may also be submitted as additional evidence of academic readiness.
- **Dispositions for Employment in an Educational Setting:** Evidence of the judgment, reliability, integrity, communication skills, maturity, respect for others, openness to feedback, and sense of responsibility necessary to work effectively in an educational setting, as demonstrated through references, interviews or recorded responses, prior employment, volunteer service, and other relevant experience.
- **Commitment and Readiness for Teacher Preparation:** Evidence that the applicant understands the responsibilities of the profession and is prepared to participate fully in required coursework, clinical experiences, mentoring, competency demonstrations, and ongoing professional growth.
- **Suitability for Work with Students and Schools:** Successful completion of required screening and background-check requirements, along with conduct and experience consistent with student safety, professional boundaries, and educator integrity.

Following enrollment and completion of the full transcript and evidence review, the candidate's individualized program requirements will be documented in the Professional Learning Plan.

Recognition of Prior Employment as a Teacher of Record

When a candidate is already employed as the teacher of record in a public school, the school's hiring and screening process will be recognized as substantial evidence of the candidate's initial qualifications and professional dispositions for teaching. Verified employment may therefore be used in place of selected application requirements, such as an additional employment reference or recorded statement.

Employment as the teacher of record does not automatically establish all required dispositions or competencies. Alcott Learning will independently verify employment and may request administrator feedback, performance evaluations, or other information when needed and will continue to evaluate the candidate's professional fitness through ongoing participation in the program. Candidates employed in other school roles are required to complete the standard application process.

4. Professional Learning Plan

Adopt: Using the model program framework.

The program creates, monitors, and verifies completion of each candidate's personalized Professional Learning Plan (PLP) through a structured, competency-based process aligned with Utah State Board of Education (USBE) requirements.

PLP Development and Structure

Within 30 days of enrollment, the program develops a draft PLP aligned with Board Rule R277-304 and the USBE PLP framework. A Plan Writer synthesizes findings from transcript review, content and pedagogy analysis, and supporting documentation to clearly identify:

- Competencies already met through prior coursework and experience
- Remaining competencies required for licensure and endorsements

- Specific evidence and learning experiences required to demonstrate remaining competencies

Candidates will be presented with clear instructions detailing which documents or artifacts may be provided to potentially fulfill each competency. Following submission of all items, each competency will be clearly marked as met (with date and evidence source), or not yet met (with a plan for completion) by the Plan Writer.

Plans for unmet competencies will include coursework, clinical experience requirements, and specific evidence to be collected. Coursework will be completed through Alcott unless a written exception is approved.

The PLP is maintained within an internal tracking system (digital or print) that fully aligns with USBE requirements.

Initial Consultation

Candidates enrolled into the program will participate in an initial consultation meeting during which their Professional Learning Plan (PLP) will be reviewed and discussed. The initial consultation meeting will be held between the candidate and the Program Director (or designated team member) to lay out the candidate's draft PLP and timeline.

Recognizing that not all candidates will have secured employment with a school prior to program entry, a mentor-educator may not yet be assigned at the time of the initial consultation. When possible, the mentor-educator will be included in that meeting. Once assigned, the candidate will participate in an introductory meeting with the mentor-educator at least 14 days prior to the start of clinical experience.

PLP Communication and Candidate Progress Tracking

Each candidate's Professional Learning Plan will be maintained within a dedicated program workspace designed to serve as the candidate's central location for licensure progress and documentation. The workspace will include the current PLP, required coursework, competency evidence, clinical documentation, evaluations, mentor feedback, and other materials related to program completion.

Candidates will have ongoing access to their PLP and will be able to track which competencies have been verified, which remain in progress, what evidence is still required, and what next steps must be completed. Regular updates will be made to the PLP so the candidate can monitor progress throughout the licensure pathway.

Appropriate access will also be provided to the candidate's mentor-educator, program evaluators, Progress Monitor, Program Director, and supervising administrator, as needed for their assigned roles. Access will be limited to information necessary for mentoring, evaluation, competency verification, and program administration and will be managed in accordance with applicable privacy and data-security requirements.

The candidate's assigned mentor will use the dedicated program workspace to provide guidance, review evidence, document feedback, and help the candidate remain on track. Significant PLP updates, competency decisions, remediation requirements, and changes to the candidate's expected pathway will be communicated directly to the candidate and documented within the system.

The PLP will function as a living document and will be updated as competencies are demonstrated, evidence is verified, requirements are completed, or additional needs are identified. Candidates will be expected to review their progress regularly, maintain required documentation, and participate actively in keeping their PLP accurate and current.

Endorsement Verification

USBE endorsement forms are completed in conjunction with the PLP to ensure all content knowledge requirements are met.

- Coursework and demonstrated competencies are mapped directly to endorsement requirements
- Forms are updated throughout the program and finalized prior to licensure recommendation
- When necessary, the program may approve external coursework through a written exception to address endorsement gaps.
- Program coursework will not be assumed to satisfy endorsement-specific content requirements unless alignment has been clearly established and all required approvals have been received.
- The program may develop additional coursework to support endorsement needs over time; however, endorsement coursework will not be developed before the initial program launch.
- Any course developed and offered by Alcott Learning, including content courses, will be documented, aligned with applicable requirements, submitted to USBE for review, and approved in Altitude before being used to satisfy licensure or endorsement requirements.

Candidate Competency Portfolio

Each candidate will develop and maintain a competency-based portfolio throughout the program. The portfolio will serve as a body of evidence of the completion of licensure competencies identified in the candidate's Professional Learning Plan.

The portfolio will be housed within the candidate's dedicated program workspace and will be organized by competency or requirement. Evidence may include lesson and unit plans, instructional materials, student work samples with identifying information removed, assessments, reflections, observation records, evaluations, mentor feedback, professional verification, course products, and other approved documentation.

Each portfolio submission must clearly identify:

- The competency or requirement being addressed
- The evidence submitted
- The context in which the evidence was developed or demonstrated
- Any required candidate reflection or explanation
- The program's independent verification that the evidence is authentic and that the described work or experience occurred
- The reviewer's determination of whether the competency has been met

The portfolio will be developed progressively throughout the program, creating a comprehensive, auditable record that supports verification of the candidate's PLP completion and eligibility for an Alcott Learning recommendation for licensure.

PLP Timeframe

This is a fully competency-based program with no minimum time requirement. Progress is continuously monitored through the PLP to ensure steady advancement toward competency completion. Candidates who are not making sufficient progress may be placed on a structured improvement plan, ensuring both flexibility and accountability while maintaining alignment with licensure requirements.

Demonstration of Progress and Completion

Candidate progress is monitored through a structured system of documentation, observation, and review aligned to program competencies and the Utah Effective Teaching Standards.

- **Progress Monitoring Meetings:** At least annually, the candidate, Program Director, Progress Monitor, mentor-educator, and administrator meet to review progress toward PLP competencies and determine next steps.

- **Documentation and Verification:** The Progress Monitor maintains and verifies records of competency completion, evaluations, and required coursework to ensure accuracy and compliance.
 - **Candidate Competency Portfolio:** Candidates progressively build and maintain a competency-based portfolio containing the evidence required to demonstrate completion of all PLP competencies and program requirements. The portfolio is reviewed throughout the program and verified through a final completion review prior to licensure recommendation.
 - **Competency-Aligned Evidence:** Candidates submit ongoing artifacts (e.g., lesson plans, portfolios, evaluations) demonstrating application and demonstration of required competencies.
 - **Mentor-educator Feedback:** Mentor-educators provide ongoing, structured feedback to support candidate growth.
 - **Formal Progress Reviews:** If there are concerns, the candidate evidence is periodically reviewed against PLP requirements to confirm progress and identify any needed support or remediation. Formal Progress Reviews are conducted through a structured, documented review process
 - **Course Completion:** Candidates complete required coursework aligned to program competencies. Course completion is tracked and serves as supporting evidence of competency development.
 - **Observation Tools and Expectations:** Mentor-educators use aligned checklists and clear expectations to guide consistent observation, support, and evaluation.
-

5. Utah Effective Teaching Standards (UETS) and Educator Competencies

Adopting the model program framework.

The program will support and evaluate candidates in demonstrating competencies that meet Utah Effective Teaching Standards (UETS) proficiency levels and the educator preparation competencies required in Board Rule R277-304. Candidates will be supported through a structured system of mentoring, clinical practice, coursework, observation, feedback, and progress monitoring designed to help each candidate demonstrate competency prior to recommendation for licensure.

The mentor-educator ensures the candidate understands the standards and is developing competency in teaching as outlined in the Utah Effective Teaching

Standards (UETS). Candidates are provided opportunities to observe effective instruction, practice instructional skills, receive feedback, reflect on their teaching, and demonstrate growth over time.

Mentor-educator feedback and other program evidence are used to document candidate progress in meeting UETS proficiency expectations. Evidence used to evaluate candidate progress may include classroom observations, lesson and unit plans, instructional artifacts, assessments, reflections, and other documentation demonstrating the candidate's application of UETS-aligned teaching practices in authentic instructional settings.

In addition to UETS proficiency, the program will ensure each candidate successfully demonstrates all educator preparation competencies required in Board Rule R277-304. Candidates are placed on an approximate timeline for completion of the PLP, and regular progress meetings are conducted to ensure candidates are progressing according to the proposed timeline.

The Progress Monitor maintains documentation of progress updates, including competencies met, evaluations completed, studies finished, and other evidence relevant to the candidate's development. Prior to recommendation for licensure, the program verifies that the candidate has successfully demonstrated competency in all preparation competencies.

6. Content-Specific Competencies

Adopt: Using the model program framework

The program ensures that candidates meet all required content knowledge and discipline-specific pedagogical competencies through a structured process of verification, gap analysis, and approved coursework aligned with Utah State Board of Education (USBE) requirements. The program seeks approval to recommend candidates for licensure in Early Childhood, Elementary, Secondary, and Career & Technical Education (CTE) license areas.

Candidate transcripts, prior coursework, and relevant experience will be reviewed to determine which content competencies have already been met and to identify any remaining gaps. For Early Childhood and Elementary license areas, the program will track content completion through the applicable USBE PLP template and content requirements in Board Rule R277-304-5. For Secondary and CTE license areas, the program will use the applicable USBE endorsement application form(s) to verify completion of required content knowledge and content-specific pedagogy

competencies, and completed endorsement form(s) will be maintained in the candidate's file.

To address identified gaps, candidates may complete content-specific requirements through a combination of:

- Prior verified coursework and experience
- Approved external providers, including accredited colleges, universities, and other quality-verified organizations
- Program coursework, where content and pedagogy are demonstrably aligned to endorsement competencies

All coursework and experiences, whether internal or external, will be reviewed and approved by the program to ensure alignment with USBE requirements and the specific content area of licensure.

Role of Program Coursework

Program coursework may play a significant role in supporting content-specific pedagogy and the applied use of content in classroom settings. Internally developed coursework may be used to support candidates in applying instructional strategies within a specific content area, designing standards-aligned lessons and units, developing assessments, analyzing student learning, and practicing content-specific instructional decision-making.

Flexible Content Knowledge Pathways

To ensure all applicable content requirements are fully met, the program provides flexible, quality-controlled pathways for candidates to complete remaining requirements, including:

- Transcript review and gap analysis aligned to the applicable PLP template, content requirements, and endorsement form(s)
- Content knowledge tests or competency exams approved by the Superintendent or USBE, where permitted and applicable
- Program-supported modules or targeted coursework
- Approved external coursework through accredited colleges, universities, or other coursework acceptable under USBE requirements and program policy

The program works with each candidate to identify the most appropriate and efficient pathway while maintaining full alignment with the applicable content requirements and endorsement requirements.

For Secondary and CTE license areas, candidates must complete all requirements for at least one applicable professional endorsement, and the completed endorsement form(s) will be maintained in the candidate's file before the candidate is recommended for licensure.

Verification and Recommendation

The program utilizes the applicable USBE PLP templates, content requirement documents, and endorsement application forms to track and document completion of all required content knowledge and content-specific pedagogical competencies. All required content competencies must be fully satisfied, verified, and documented prior to recommendation for licensure.

For Secondary and CTE license areas, all requirements on the applicable endorsement form(s) must be completed in full and maintained in the candidate's file before recommendation. The program will not recommend any candidate for licensure until all applicable content requirements and endorsement requirements have been met in full.

7. General Teacher Preparation Competencies

Adapt: Using the model program framework with the following adaptations:

Program Courses

The program may recognize prior coursework during the admissions and intake process when it aligns with required competencies. Remaining unmet competencies will be fulfilled through courses developed and provided by Alcott Learning, ensuring coherence, rigor, and fidelity of implementation in licensure preparation. Exceptions to the Alcott-only course rule may be granted in unique circumstances upon review.

Alcott Learning Courses

1. The Phases of Learning and Brain Development Candidates explore the developmental phases of learning and brain development, with an emphasis on the belief that all students are capable of learning. Candidates study teaching strategies

appropriate to each age and developmental phase and designed to maximize learning in each phase. Instruction begins with foundational online coursework, followed by live online or in-person experiences focused on the specific age range candidates intend to serve. In these settings, candidates actively create lessons and practice methods that make learning engaging, effective, and responsive to students' needs at each stage of development. Best of all, when teaching is aligned with natural developmental phases, students engage more deeply in learning and the work of teaching becomes more effective and sustainable.

Course Outcomes:

1. Experience and design lessons that use the natural strengths of each developmental phase to make learning deeply meaningful, joyful, engaging, and effective.
2. Understand equal opportunity as outlined in R277-328 by acknowledging that all students are capable of learning. **(PR.1)**
3. Design learning experiences that build on learners' background knowledge and support students' needs. **(LL.2)**
4. Identify instructional adaptations that benefit learners from varied backgrounds. **(LL.4)**
5. Encourage student ownership of learning by applying real-world connections and authentic learning experiences in the classroom. **(LL.6)**
6. Provide opportunities for students to track, reflect on, and set goals for their learning. **(IC.5)**
7. Design a variety of instructional strategies that engage students and promote active learning. **(IC.7)**
8. Include differentiated strategies aligned with lesson objectives to meet the unique needs of every student. **(IP.1)**
9. Provide appropriate strategies that promote and facilitate students' problem solving, critical thinking, and discourse. **(IP.2)**
10. Provide relevant learning opportunities grounded in student interests, needs, and backgrounds. **(IP.6)**
11. Strategically organize and structure the classroom environment for optimal student learning. **(CC.6)**
12. Encourage a classroom environment where students feel safe to take risks, participate, and engage. **(CC.8)**

2. Creating Transformational Learning Experiences A well-built curriculum can become a treasure source that pays dividends for years, but for many new teachers, knowing how to design or acquire the curriculum they need can feel overwhelming. Seasoned teachers whose curriculum feels stale or needs new life can also benefit from deepening the craft of designing learning experiences that transform the

learner for the better and bring educational ideals to life in the classroom. Drawing on foundational principles and models such as the Hero's Journey, backwards design, project-based learning, and differentiated instruction, candidates go step by step through the process of planning powerful learning experiences learning to create, acquire, adapt, and organize curriculum, assignments, projects, and lessons. Candidates also discuss the role of technology in the classroom and learn how to use a Learning Management System (LMS) to support effective teaching and learning. This course focuses on the art and design of learning, helping educators turn vision into transformational experiences that inspire real growth in students.

Course Outcomes:

1. Leave with a clear understanding of how to design or revise curriculum, lessons, and assignments that become lasting teaching assets.
2. Design transformational learning experiences that turn powerful vision into cohesive courses, units, assignments, projects, and lessons that inspire real student growth.
3. Design learning that builds on the learner's background knowledge and supports students' needs. **(LL.2)**
4. Identify adaptations made to instruction to benefit learners of varied backgrounds. **(LL.4)**
5. Encourage student ownership of learning by applying real-world connection and authentic learning experiences in the classroom. **(LL.6)**
6. Create learning intentions and success criteria that are aligned to Utah Core Standards. **(IC.2)**
7. Plan learning progressions that build upon students' previous learning and support current learning intentions. **(IC.4)**
8. Provide opportunities for students to track, reflect on, and set goals for their learning. **(IC.5)**
9. Design a variety of instructional strategies to engage students and promote active learning. **(IC.7)**
10. Include differentiated strategies aligned with lesson objectives to meet the unique needs of every student. **(IP.1)**
11. Provide appropriate strategies to promote and facilitate students' problem solving, critical thinking, and discourse. **(IP.2)**
12. Provide relevant learning opportunities that are grounded in student interests, needs, and backgrounds. **(IP.6)**
13. Provide intentional tools and technology to design and implement activities that promote active student technology use. **(IP.8)**

3. Methods for Excellence in Teaching Candidates will gather all of the best methods in teaching in this course. They begin by studying the great educators of

the past, exploring foundational texts, influential theorists, and the centuries-old practices that have shaped effective teaching across generations. Building on this foundation, candidates examine time-tested educational methodologies such as Classical and Montessori education, along with instructional approaches used in great schools and within their content areas, including outdoor learning, project-based learning, and competency-based instruction. Candidates also learn broader classroom methods, including effective classroom leadership that creates behavioral safety through appropriate consequences, clear boundaries, and respectful student engagement. Through the combination of classic works, innovative models, and research-informed practices, candidates are exposed to powerful educational ideas beyond their own experience, including many principles that have been lost or diluted over time and can be brought to life in the many new school environments emerging today.

Course Outcomes:

1. Draw from the best educational principles across time, models, and settings to expand beyond personal experience and strengthen teaching with both time-tested and emerging ideas.
2. Candidates will reflect on the most powerful teachers and educational experiences they have encountered, identify the core principles that made those experiences meaningful, and become the kind of teacher who creates that impact for others in their own way.
3. Develop practical classroom leadership tools, clear boundaries, and a confident plan for addressing behavioral concerns that empowers the teacher, creates safety and respect for all students and an environment of meaningful student engagement.
4. Strengthen and support classroom norms that encourage positive teacher-student and student-student relationships. **(LL.3)**
5. Encourage student ownership of learning by applying real-world connection and authentic learning experiences in the classroom. **(LL.6)**
6. Design a variety of instructional strategies to engage students and promote active learning. **(IC.7)**
7. Provide appropriate strategies to promote and facilitate students' problem solving, critical thinking, and discourse. **(IP.2)**
8. Provide relevant learning opportunities that are grounded in student interests, needs, and backgrounds. **(IP.6)**
9. Promote a classroom environment in which students will respect and value each other. **(CC.2)**
10. Involve students in establishing clear guidelines for behavior. **(CC.3)**
11. Address physical and emotional safety concerns in a timely manner. **(CC.4)**

12. Encourage an environment where students feel safe to take risks, participate, and engage. **(CC.8)**

4. Principles in Practice New educators often feel excited to bring their ideals, training, and vision into the classroom, only to discover that translating those high ideals into daily practice can be difficult. It is possible! This course helps candidates bridge that gap through a practical launch checklist that guides them from preparation before the learning experience begins until teaching is well underway. Candidates design the practical systems needed to teach with confidence in a real-world classroom environment, including physical classroom setup, daily routines, transitions, procedures, expectations, consequences, communication, organization, and technology use. Emphasis is placed on turning strong educational principles into consistent classroom practice so candidates are prepared to maximize learning time, support student growth, and create the kind of learning experience they hoped was possible.

Course Outcomes:

1. Prepare to launch and sustain a well-run classroom by using a practical classroom checklist to translate educational ideals into daily classroom practice through thoughtful systems for setup, routines, transitions, expectations, consequences, communication, organization, and technology use.
2. Create classroom systems that support safety, structure, and engagement so students know what to expect, learning time is protected, and the teacher can lead with clarity and confidence.
3. Strengthen and support classroom norms that encourage positive teacher-student and student-student relationships. **(LL.3)**
4. Identify adaptations made to instruction to benefit learners of varied backgrounds. **(LL.4)**
5. Create learning intentions and success criteria that are aligned to Utah Core Standards. **(IC.2)**
6. Design a variety of instructional strategies to engage students and promote active learning. **(IC.7)**
7. Include differentiated strategies aligned with lesson objectives to meet the unique needs of every student. **(IP.1)**
8. Provide relevant learning opportunities that are grounded in student interests, needs, and backgrounds. **(IP.6)**
9. Provide intentional tools and technology to design and implement activities that promote active student technology use. **(IP.8)**
10. Promote a classroom environment in which students will respect and value each other. **(CC.2)**

11. Involve students in establishing clear guidelines for behavior. **(CC.3)**
 12. Address physical and emotional safety concerns in a timely manner. **(CC.4)**
 13. Consistently apply the norms of the classroom to align with schoolwide expectations. **(CC.5)**
 14. Strategically organize and structure the classroom environment for optimal student learning. **(CC.6)**
 15. Encourage an environment where students feel safe to take risks, participate, and engage. **(CC.8)**
 16. Comply with relevant school, district, and state laws, rules, and policies governing the profession. **(PR.2)**
 17. Demonstrate intellectual curiosity and values continuous growth by engaging in professional learning. **(PR.3)**
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8. Clinical Experience/Fieldwork Overview and Competencies

Adapt: Using the model program framework with the following adaptations:

Clinical Experience Overview

In alignment with Board Rule R277-304 and USBE guidance, this program operates on a competency-based model rather than a time-based model. Candidates progress by demonstrating required competencies, not by completing a prescribed number of hours. Clinical experiences are intentionally designed to provide sufficient **depth, breadth, and duration** to ensure that candidates have multiple, meaningful opportunities to observe, practice, and demonstrate teaching skills in authentic classroom settings.

Candidates are provided structured and progressively more complex opportunities to develop and demonstrate required competencies with students. All clinical experiences are aligned with the Utah Effective Teaching Standards (UETS) and program competencies. Candidates may demonstrate competency through multiple evidence options that build toward a comprehensive portfolio, with competency attainment documented in the candidate's Professional Learning Plan (PLP).

Candidates are enrolled in a structured "Apprenticeship" course in the program, guided by the Clinical Experience Coordinator, through which they participate in a sequence of apprenticeship and clinical experiences tailored to their individual PLP

requirements. Each apprenticeship cohort will have a designated home base within the program's Learning Management System (LMS) or other technology platform, where we will track and candidates will access orientation materials, instructions, timelines, forms, tracking tools, submission portals, and communication supports. Program staff will use this system to monitor candidate progress, review documentation, track required evidence, and ensure that each candidate's clinical experience remains organized, accountable, and aligned with program requirements and PLP goals.

Major Components of the Apprenticeship Course

- **Targeted Observation:** Candidates complete one or more targeted classroom observations, with structured reflection documented in the candidate's portfolio.
- **Guided Practice Teaching:** Candidates participate in supported teaching experiences with feedback and coaching from a mentor-educator.
- **Classroom Teaching:** Candidates assume direct instructional responsibility and demonstrate required competencies in classroom settings.
- **Portfolio Development:** Candidates use the program's tracking system to monitor progress toward competency attainment and build supporting evidence into their professional portfolio.
- **Job Placement Support:** Candidates receive guidance in identifying high-quality employment opportunities, including information about educator hiring cycles and regional job fairs. They also complete recorded practice interviews and receive AI-generated feedback through tools such as VMock to strengthen their interviewing skills.

Throughout the clinical experience, candidates receive ongoing coaching, feedback, and support from mentor-educators and program staff. Progress is monitored through aligned evaluation tools, observation records, and verifiable documentation of competency development.

When candidates do not demonstrate sufficient progress, targeted support and remediation are provided in alignment with the program's remediation process to ensure candidates have additional opportunities to meet required competencies.

Clinical Experience in Non-Traditional Settings

Unlike traditional APPEL models, which often rely on candidates serving as teachers of record, this program is designed to also support candidates who are not yet embedded in full-time classroom roles. Accordingly, the program provides flexible, supported pathways into clinical practice, enabling candidates to demonstrate competencies in diverse, authentic instructional settings.

In recognition of this model and in accordance with Board Rule R277-304, the program allows clinical experiences to occur, in whole or in part, in nontraditional instructional environments.. These may include private schools, microschools, higher education settings, and other structured learning-based programs, provided that all placements demonstrate alignment with required competencies and meet established supervision and evaluation criteria.

Candidates may complete clinical experiences in these non-traditional environments when those experiences include structured instructional opportunities aligned to the program competencies. In such cases, candidates are required to:

- **Design and deliver instruction** aligned to the Utah Core Standards or, where the placement site does not use Utah Core, to the placement site's officially adopted academic or curricular standards, as approved by the program for sufficiency of rigor, instructional relevance, and alignment to required competencies.
- **Receive supervision and evaluation** from an educator, supervisor or administrator with relevant instructional experience.
- **Obtain formal verification and sign-off** from an independently verified and qualified supervisor or administrator confirming that required competencies have been observed and demonstrated.
- **Demonstrate competency through verifiable evidence**, including observations, formal evaluations, or artifacts of teaching practice aligned to competencies.
- **Participate in placements within established programs**, defined as organizations with a demonstrated record of sustained operation and a student population sufficient to support meaningful clinical experience

This approach aligns with a true competency-based model. All clinical experiences in non-traditional settings must meet established expectations for instructional rigor, supervision, and evaluation to ensure competency and alignment with licensure requirements.

Candidate Progress

Candidate progress is tracked and documented through the Professional Learning Plan (PLP), as detailed in the previous section. Progress toward each required clinical experience competency is monitored through a structured system of observation, documentation, and formal review, consistent with Board Rule R277-304).

Candidates are evaluated on their progress using multiple measures of evidence, including:

- **School Administrator or Clinical Supervisor Evaluation:** Conducted at least twice per year through completion of a standardized evaluation form, a meeting with the candidate to review progress, or both.
- **Mentor-Educator Observation and Feedback:** Review and feedback based on standardized, competency-aligned evaluation tools, as needed.
- **Portfolio Development:** Review of the candidate's progress in building a portfolio of evidence, including lesson plans, assessments, and recorded or observed teaching demonstrations, as needed.
- **Remediation:** Candidates who are not making sufficient progress toward competency attainment may be placed on a remediation plan as described in the Remediation section.

Candidate progress is tracked against each required demonstrated competency, with clearly documented evidence identifying how and where each competency was demonstrated. All competency determinations are supported by verifiable documentation and maintained as part of the candidate's official record, including date-stamped observation notes, formal evaluations, instructional artifacts, and reflection records.

Candidates are provided multiple, structured opportunities to be observed, receive feedback, and demonstrate competency over time. All evidence is reviewed through a formal, program-defined review process using aligned evaluation tools and clearly defined criteria to ensure consistency and rigor across candidates.

Candidates must demonstrate competency in all required areas prior to recommendation for licensure. The program's supervision model ensures that candidates do not merely accumulate teaching experience, but demonstrate each required clinical competency through consistent, documented verification across multiple measures. No candidate will be recommended for licensure until the program has verified successful demonstration of all required clinical experience competencies.

See Appendix A to review the evaluation tools.

Support for Multi-State Clinical Experience

The program supports candidates in pursuing licensure in Utah, states participating in the Interstate Teacher Mobility Compact, and other states with favorable pathways for adding a teaching license, such as Arizona and Idaho.

The program may provide support for candidates completing clinical experiences outside Utah by actively assisting with placement identification, site review, and approval. All out-of-state placements must be reviewed and approved by the

program before the clinical experience begins, including review of the placement setting, supervising personnel, evaluation process, and opportunities for the candidate to demonstrate all required competencies.

When an existing approved placement is not available, the program will work directly with the candidate and prospective site to verify that applicable state requirements and program standards are satisfied and to establish an approved placement pathway. Regardless of the location of the mentor-educator, the same criteria will be applied to their selection, training, and oversight, as detailed below in Section 9.

9. Program Mentoring

Adapt: Using the model program framework with the following adaptations:

Candidate Placement Pathways

Clinical Placement: Candidates may enter clinical experience through one of three primary pathways: (1) placement by a hiring school that refers the candidate to the program, (2) placement facilitated through program partnerships, or (3) placement secured independently by the candidate for a clinical experience.

All clinical placements, regardless of pathway, are reviewed and approved by the program to ensure alignment with Board Rule R277-304 requirements, including adherence to UETS, appropriate supervision by qualified personnel, and sufficient opportunities for observation, practice, and demonstration of competencies.

Mentor Selection

The Clinical Experience Coordinator works in partnership with schools and executive directors to identify, select, train, and monitor mentor-educators who are well-positioned to support candidate development. Once a clinical experience is established, each candidate is assigned at least one mentor-educator. Mentor-educators are selected by the Program Director or designee in collaboration with school or program leadership.

Mentors are selected based on their ability to model effective teaching and support developing educators. Selection criteria include:

- Holds a current professional educator license or equivalent in their state
- Has a minimum of two years of successful teaching experience (three or more years preferred)
- Performs, or has previously performed, instructional duties substantially similar to those required by the program competencies
- Demonstrates strong instructional practice, including classroom management, instructional design, and student engagement
- Exhibits effective coaching, communication, and collaboration skills
- Has sufficient release time to serve effectively as a mentor-educator or is assigned as an instructional coach or equivalent position, and is able to provide consistent access, support, and actionable feedback to the candidate

Mentors may be drawn from traditional school settings as well as alternative or non-traditional educational environments, provided they meet licensure and experience requirements stated in this section.

Mentor Training

Before working with a candidate, each mentor-educator participates in an individual onboarding meeting with program staff to review expectations, program tools, and readiness for the role. Mentor-educators also complete state-supported mentor training aligned with Board Rule R277-308 or equivalent training provided by the program.

The program's mentor training prepares mentor-educators to model effective instruction, support candidate development, and provide consistent, competency-aligned observation and feedback. Training clearly addresses how to recognize, evaluate, and document evidence of competency attainment.

Training and ongoing support include:

- An overview of program expectations, candidate competencies, and clinical experience requirements
- Guidance in using standardized observation and evaluation tools
- Training in providing high-quality, standards-aligned feedback
- Coaching practices involving observation, reflection, and goal-setting
- Guidance in reviewing instructional plans and observing classroom instruction
- Review of the candidate's Professional Learning Plan (PLP) and the mentor's role in supporting and documenting progress
- An initial meeting with the candidate to establish goals, responsibilities, and expectations

Mentor-educators without prior mentoring experience receive any additional training necessary to ensure consistency and quality. All mentor-educators receive ongoing program support to promote fidelity of implementation throughout the clinical experience.

Mentor Responsibilities

Mentor-educators play a central role in supporting candidate development throughout the clinical experience. Their responsibilities include:

- Observing candidates in instructional settings and providing timely, actionable feedback
- Supporting candidates in lesson planning, instruction, classroom management, and reflection
- Participating in scheduled clinical experience activities identified in the candidate's Professional Learning Plan (PLP)
- Guiding candidates in reflective practice and professional growth
- Providing formative input to program staff regarding candidate progress toward competency attainment
- Documenting mentoring observations, feedback, and support provided to the candidate

Mentor-educators help candidates develop the skills necessary to meet program competencies but do not make formal licensure recommendation decisions. Formal evaluation is conducted by program staff, administrators, or other qualified evaluators in accordance with program policy and applicable rule.

Monitoring and Support of Mentors

The program actively monitors mentor effectiveness to ensure high-quality support for candidates. This includes:

- Regular check-ins between program staff and mentor-educators
- Ongoing communication regarding candidate progress and mentoring needs
- Review of observation notes, feedback quality, and candidate outcomes
- Support and coaching for mentors as needed to ensure alignment and effectiveness

This monitoring ensures consistency across placements, including those in alternative or non-traditional settings.

10. Teacher Dispositions

Adopting the model program framework.

In alignment with R277-304-4(7), the program evaluates candidate dispositions and overall suitability for teaching through multiple sources of evidence, observation, reflection, and documented feedback.

Professional dispositions are formally assessed at two points: during the application process and following completion of any required clinical experience. Initial evaluation may include references, candidate statements or interviews, application materials, and observed or recorded teaching practice. For candidates employed by a school before program entry, the school's hiring process may provide additional evidence of entry qualifications and professional dispositions.

Dispositions are also monitored throughout the program through coursework, clinical experiences, program participation, mentor observations, candidate reflection, and feedback from program staff, administrators, or other qualified individuals. If implemented, the program may also use a third-party service to review relevant publicly available online information in accordance with applicable law and program policy.

The program uses a standardized internal evaluation tool to assess patterns of conduct across multiple data points. Areas reviewed may include:

- Reliability and responsibility
- Integrity and professional judgment
- Respect for students, colleagues, and families
- Communication and collaboration
- Responsiveness to feedback
- Appropriate professional boundaries
- Commitment to student learning and growth
- Ability to build appropriate professional connections
- Other dispositions relevant to effective and ethical teaching

When concerns arise, the program documents the concern, provides targeted support, and may establish an improvement or remediation plan. Continued or significant concerns may result in removal from the program in accordance with program policy.

11. Remediation

Adopting the model program framework.

Candidate Probation and Remediation

The program maintains a structured, competency-based process to support candidates who are not making sufficient progress toward completion of their Professional Learning Plan (PLP) while maintaining program standards and Utah State Board of Education requirements.

Identification of Concerns

The PLP Monitor reviews candidate progress through PLP evidence, mentor feedback, formal evaluations, and other relevant program documentation. A candidate may be identified for additional support when the candidate:

- Does not meet established competency benchmarks
- Does not make adequate progress toward PLP completion
- Receives concerning feedback and/or is unresponsive to feedback from a mentor-educator, administrator, evaluator, or program staff member
- Demonstrates other concerns affecting successful program completion

When concerns indicate that ordinary support is no longer sufficient, the PLP Monitor notifies the APPEL leadership team. The team reviews the available evidence and determines whether the candidate should be placed on program probation and assigned a formal Remediation Plan.

Remediation Plan

The PLP Monitor works with the candidate and, as appropriate, the mentor-educator, administrator, or other program personnel to develop an individualized Remediation Plan. The plan includes:

- The specific competencies or concerns requiring improvement
- Required actions and targeted supports
- The evidence the candidate must provide to demonstrate improvement
- A defined timeline and progress-monitoring schedule
- The possible outcomes if the plan is or is not successfully completed

Targeted Support

Support during remediation may include:

- Additional coaching from a mentor-educator or program staff
- More frequent observation and feedback cycles
- Observation of experienced educators
- Team-teaching or co-teaching opportunities
- Additional practice, coursework, or evidence development
- Adjustments to instructional responsibilities when appropriate
- Other supports aligned with the identified competency needs

Review and Outcomes

Candidate progress is documented and reviewed throughout the remediation period. At the conclusion of the established timeline, the APPEL leadership team may determine that the candidate:

- Has demonstrated sufficient improvement and may return to good standing
- Has made meaningful but incomplete progress and may receive an extension or revised Remediation Plan
- Has not demonstrated sufficient improvement and may be removed from the program

Exit Counseling

When a candidate is removed from the program, the program provides formal exit counseling that includes:

- Clear communication regarding unmet requirements and the reasons for removal, supported by supervisor reports and other relevant documentation
- Documentation of the candidate's progress and the support provided
- Information regarding applicable appeal procedures
- Guidance regarding possible next steps, when appropriate

The program maintains a structured process to support candidates who are not making sufficient progress toward completion of their Professional Learning Plan (PLP), while ensuring alignment with program expectations and Utah State Board of Education requirements.

12. Record Management

Adopting the model program framework.

Overview

The program will manage APPEL documents, records, and workflow through centralized, secure records-management systems. The system will function as the program's official source of truth for candidate progress, personnel training records, document control, workflow status, and completion verification. The Program Director will have overall responsibility for document governance, records quality, access permissions, compliance, and audit readiness. The Progress Monitor will maintain the active status of each candidate file, track required evidence and milestones, and verify that each file is current, complete, and properly documented. The program will also maintain coordinated records for both program-level operations and candidate-level progression.

Workflow will be managed through a formal intake-to-completion process with defined stage gates. Once a candidate applies to the program, an official file will be opened and will be used to move the candidate through all the phases of the program, such as admissions, enrolment, transcript and document analysis, PLP development, consultation and mentoring setup, competency tracking, progress monitoring, remediation if needed, completion review, and recommendation preparation. Each required item will be assigned a status and reviewed for completeness before the candidate advances. This structure is intended to ensure consistency, timely follow-up, and clear accountability across all candidates.

This records-management model is intentionally built for a private, scalable educator preparation provider. It assumes the program may serve candidates across multiple partner environments, may receive documentation from multiple sources, and must still be able to demonstrate unified control, consistent review standards, secure handling of records, complete workflow visibility, and immediate audit readiness. Its purpose is not merely to store files, but to ensure that every candidate record is organized, reviewable, and managed with fidelity from admission through recommendation.

Program Documentation

The following documentation about the program will be maintained and securely stored per the practices described later in this section.

- **Personnel professional development master log** showing all local and state PD completed for each leadership team member
- **Training syllabus / agenda / outline** for every local training
- **Attendance records / sign-in sheets** for each local training

- **Follow-up event logs** after trainings documenting coaching, check-ins, calibration, reinforcement, or implementation support for leadership team members and mentor-educators

Candidate Documentation

The following candidate records and documentation will be securely stored per the practices described in the next section.

- Official and unofficial transcripts from regionally accredited institutions
- CTE certifications and work experience documenting progressive progress
- PLP documentation including, but not limited to:
 - Transcript reviews including course descriptions, etc. including endorsement form(s).
 - Draft PLP and subsequent updates and final versions as the candidate progresses toward professional licensure.
 - Documentation of communications related to the candidate's progress
 - Notes from consultation meetings, clinical experiences, and reflection conversations.
 - Relevant educator artifacts to document progress and evidence of competency.

Document Storage

Documentation storage will be accomplished through the following minimum set of best practices.

- We will create a naming protocol for candidate electronic folders and files such as transcripts, endorsement forms, certifications, PLPs, etc. to allow for multiple copies to be received and stored over time.
- We will create a personal, private, password-protected storage area for the candidate to develop and maintain personal artifacts.
- We will create a shared, password-protected storage area to house APPEL documents.
- We will create a document sharing strategy to give restricted access to PLPs from draft to completion.
- We will set up efficient methods for searching for course descriptions, regional accreditation status, Altitude transcripts, etc. to support the transcript review process.
- We will create a tracking process to manage clinical experience schedules, consultation events, coursework progress, and shared documentation for each candidate.

Additional Program Policies

One of our primary concerns is the safety and well-being of students, especially in light of recent increases in reported violations of student safety. Our program is committed to high standards of professional responsibility, ethical conduct, and institutional integrity. The following safeguards ensure the protection, accountability, and support of all students, candidates, and staff, while meeting R277-303 requirements.

Student Grievance & Record-Keeping Policies

- A formal grievance policy allows candidates to report concerns safely and confidentially.
- Program records, including assessments, mentor evaluations, and grievances, are securely maintained in compliance with state requirements.

Highly Secure Technology

- The program will implement secure, industry-standard technology systems to support record-keeping, candidate tracking, and data protection in compliance with state requirements and the secure handling of sensitive data at the level expected by the industry and the State of Utah.
- Our team includes a highly experienced member from the FinTech industry, bringing extensive expertise in compliance and security to guide and evaluate our technology solutions.

Refund Policy

- Transparent policies govern refunds, ensuring fairness in cases of withdrawal or program discontinuation.

Liability Insurance

- We are exploring requirements for comprehensive liability coverage to protect the program, students, candidates, staff, and apprenticeship placements.

These safeguards demonstrate our commitment to institutional responsibility, student and candidate safety, and professional integrity. Through clear entry requirements, background checks, ethics training, grievance procedures, secure record-keeping, and liability coverage, the program operates with accountability and credibility.

13. Personnel Professional Development and Staffing

Alcott Learning will operate as a learning organization, using candidate progress data, KPIs, mentor feedback, stakeholder input, and program outcomes to continuously improve personnel training, communication systems, and candidate support. Although the program will begin with a small leadership team, Alcott Learning recognizes that program growth will require additional staffing to maintain strong communication, timely feedback, consistent PLP monitoring, and accurate competency tracking for each candidate.

As candidate enrollment increases, Alcott Learning will add personnel based on candidate caseloads and program needs. Additional roles may include candidate advisors, mentor teachers, clinical supervisors, course facilitators, assessment reviewers, and administrative support staff. Alcott Learning has already begun developing a staffing pipeline through its broader network of experienced educators, licensed teachers, school leaders, and instructional mentors. At this time, five licensed educators have expressed serious interest in joining the program as additional staffing is needed.

Because Alcott Learning anticipates that the program may grow quickly, enrollment growth will be managed carefully to protect candidate experience and program quality. If candidate interest exceeds the program's ability to provide timely communication, strong PLP support, observation feedback, and careful progress monitoring, Alcott Learning will use waitlists or delayed cohort starts rather than overextending staff or disappointing candidates. This will allow the program to grow responsibly while maintaining clear expectations, high-quality support, and compliance with program requirements.

Professional development for program personnel will focus on Utah Effective Teaching Standards, PLP development and monitoring, competency-based assessment, mentor expectations, evidence review, candidate communication, and program improvement. The Alcott leadership team will regularly review candidate progress, mentor feedback, completion timelines, and communication patterns to determine when additional staffing, training, or system improvements are needed.

To support consistent implementation, Alcott Learning will establish a regular organizational meeting rhythm for all program personnel. This may include leadership team meetings, candidate progress review meetings, mentor and supervisor coordination meetings, and periodic all-staff professional development meetings. These meetings will be used to review candidate progress, identify

concerns early, align expectations, improve systems, and ensure that all personnel understand their responsibilities. Alcott Learning will also use clear role descriptions, performance reviews, documentation expectations, and systems of accountability for each staff role to ensure that program personnel are meeting expectations and that candidates receive timely, consistent, and high-quality support.

This approach will allow Alcott Learning to begin responsibly, grow intentionally, and maintain strong support and accountability as the program expands.

14. Appendices

Appendix A: [Alcott Learning Competency Approval Template](#) (Document access required from USBE.)

Thank you!

2025 APPEL Program Approval Review

Program Name: Alcott Learning APPEL program

Initial Review Date: April 28, 2026, updated 6/11/2026 & 7/17/2026

The following outlines how the program intends to meets the requirements in Board rule, as outlined in their application.

Board Rule Requirements			
Item	Criteria	Meets requirement	Notes
Definition of Educator Preparation Program (R277-303-2)	Program is developed by or associated with an institution of higher education, individual LEA, a consortium of LEAs, or the Board.		Program has provided email communications with LEA directors on potential associations, if approved
Flexibility (R277-303-2)	Program designs and implements focused options for candidates to demonstrate required competencies	X	Program has provided multiple options for candidates to demonstrate required competencies
Physical Location (R277-303-5(2))	Program meets one of the following requirements: 1. Have a physical location in Utah where participants attend classes; or 2. If the program provides only online instruction, the program's primary headquarters is located in Utah and the program is licensed to do business through the Utah Department of Commerce.	X	Program plans to offer hybrid learning and has established a location where candidates will attend classes and is licensed to do business through the Utah Department of Commerce (see application pg.5 for details)
Entry Requirements (R277-303-5(2))	Program establishes entry requirements that include measures of previous academic success, disposition for employment in an educational setting, and basic skills in reading, writing, and mathematics.	X	Program provided anticipated measures of previous academic success, disposition for employment in an education setting, and basic skills in reading, writing, and mathematics in their application (see pg. 14 for details)
Utah Educator Preparation Program Standard 1a (R277-303-3)	Program completers can effectively demonstrate the educator preparation competencies established in Board rule	X	See notes below under APPEL Model Program Outline items Content Competencies & Methods, General Teacher Preparation, and Clinical Experience Competencies
Utah Educator Preparation	Program completers have the experience, knowledge, and skills needed to serve students with a variety of educational needs	X	See notes below under APPEL Model Program Outline items Content

Program Standard 1b (R277-303-3)			Competencies & Methods, General Teacher Preparation, and Clinical Experience Competencies
Utah Educator Preparation Program Standard 1c (R277-303-3)	Program completers establish goals for their own professional growth and engage in self-assessment, goal setting, and reflection.	X	See notes below under APPEL Model Program Outline items Content Competencies & Methods, General Teacher Preparation, and Clinical Experience Competencies
Utah Educator Preparation Program Standard 2a (R277-303-3)	Program provides high quality learning experiences aligned to Utah competencies and standards while offering multiple opportunities for a candidate to demonstrate that the candidate has the knowledge and skills to serve all students.	X	See notes below under APPEL Model Program Outline items Content Competencies & Methods, General Teacher Preparation, and Clinical Experience Competencies
Utah Educator Preparation Program Standard 2b (R277-303-3)	Program seeks out and supports high quality clinical experiences for a candidate where the candidate has opportunities to practice and receive feedback on their knowledge and skills		See notes below under APPEL Model Program Outline item Clinical Experience Overview
Utah Educator Preparation Program Standard 2c (R277-303-3)	Program develops and supports high quality mentors who support program candidates in demonstrating competencies in Board rule	X	See notes below under APPEL Model Program Outline item Program Mentoring
Utah Educator Preparation Program Standard 2d (R277-303-3)	Program prioritizes capacity to support candidates as reflected in staffing and institutional resources	X	See notes below under APPEL Model Program Outline item Leadership Team
Utah Educator Preparation Program Standard 3a (R277-303-3)	Program engages in thoughtful continuous improvement practices by reviewing program performance data and seeking opportunities for innovations and enhancement	X	See notes below under APPEL Model Program Outline item Personnel Professional Development
Utah Educator Preparation Program Standard 3b (R277-303-3)	Program seeks partnerships with stakeholders to strengthen the Utah education system.		See emails on potential associations with LEAs

The Superintendent shall design and maintain a model educator preparation program that meets the requirements of all applicable Board rules, and may be adopted by an LEA, an accredited private school, or consortium of accredited private schools as long as the private schools meet all the requirements listed above (see R277-303-5). The following outlines how the program intends to meet the APPEL Model Program Outline, as described in their application.

APPEL Model Program Outline			
Item	Criteria	Meets requirement	Notes
Leadership Team	Program describes the experience and qualifications of the individuals who will lead the program and support candidates.	X	Almost all leadership roles will be administered by program director, who holds a professional teaching license in Utah & Texas. Application indicates intent to hire additional staff as program expands
Initial Evaluation	Program describes how it will review transcripts and existing documentation.	X	Adapt model program (see application pg. 9-15)
Professional Learning Plan	Program describes how it will write, monitor and show progress and completion of candidate's PLP.	X	Adopt the model program
UETS & Teaching Dispositions	Program describes how it will support and evaluate UETS competency and teacher dispositions	X	Adopt the model program
Content Competencies and Methods	Program describes how it will help candidates meet content knowledge and content-specific pedagogical needs.	X	Adopt the model program
General Teacher Preparation	Program describes how it will meet the general pedagogical needs of candidates.	X	Adapt model program (see application pg. 22-27); Staff have approved program courses as aligned to General Teacher Preparation Competencies
Clinical Experience Overview	Program describes how it will support candidates during their clinical experiences and how candidates will have opportunities to observe, practice skills, and reflect on teaching.		Adapt model program (see application pg. 27-30) see comments below on "Clinical Experience in Non-Traditional Settings" and "Support for Multi-State Clinical Experience".
Clinical Experience Competencies	Program describes how candidates will demonstrate clinical experience competencies in Board rule.	X	Adopt the model program

Program Mentoring	Program describes how mentor-educators will be selected, trained, and supported.	X	Adapt model program (see application pg. 31-33)
Teacher Dispositions	Program describes how it will evaluate candidate disposition for teaching.	X	Adopt the model program
Remediation	Program describes how it will plan for candidate's remediation and exit counseling.	X	Adopt the model program
Personnel Professional Development	Program describes how it will build and maintain capacity of program personnel in their responsibilities.	X	Adapt model program (See Application pg. 40-41)
Record Management	Program describes how it will manage documents, records, and workflow.	X	Adopt the model program

Page #	General Comments
28-29	<u>Clinical Experience in Non-Traditional Settings</u> Program application mentions desire to provide clinical experiences in non-traditional settings including "private schools, microschools, higher education settings, and other structured learning-based programs". Board rule defines clinical experience as "a structured opportunity in which a program candidate is mentored by a licensed teacher and evaluated by a school or district administrator or institution of higher education preparation program faculty member with appropriate training. Competency is also defined as evidence be demonstrated in 'higher education or preK-12 classroom setting". USBE Staff discussed the following questions/concerns with the program: • Demonstration competencies must be demonstrated in a classroom with children, meaning no higher education settings. Candidates must have opportunities to teach children in a clinical setting to demonstrate these competencies. • Need a better definition of microschools and structured-learning based programs to know if they meet the definition of clinical experience. Will these placements have a licensed educator to mentor candidates and 'school administrator or IHE faculty member with training' to evaluate candidates? • The placement site's academic or curricular standards need to align to Utah Core Standards so candidates can demonstrate competency in teaching the Utah Core Standards.
30-31	<u>Support for Multi-State Clinical Experience</u> Program application mentions desire to provide candidates with clinical experiences in other states. USBE Staff discussed the following questions/concerns with the program: • How will the program monitor and support candidates in clinical experiences in other states? • For candidates who secure their own placements, who will clinical experience requirements be communicated to candidates?

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: R277-330, Utah Effective Educator Standards (Amendment)

Agenda item type:

Action Item

Recommended Action:

That the Committee approve R277-330, Utah Effective Educator Standards, Draft 1, on first reading and forward to the Board for approval on second and final reading.

Purpose of Memo:

Staff recommendation

Background:

During the September 2025 Board meeting, the Board directed staff to initiate a comprehensive revision of the Utah School Leadership Standards. A writing committee including representatives from most stakeholder groups was formed in November 2025 and met monthly to draft the proposed leadership standards. Public feedback was received in April, 2026. The proposed DRAFT Educational Leadership Standards reflect the writing committee's work and public feedback.

Staff will present R277-330, Utah Effective Educator Standards, Draft 1, for consideration and approval. Draft 1 incorporates the new Educational Leadership Standards.

Authorizing, and Implemented or Interpreted Law: [Article X, Section 3](#); [53E-3-401\(4\)](#); [53E-3-501\(1\)\(a\)](#)

Contact:

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Attachments:

1. R277-330 - Draft 1 - August 2026 Committee
2. BoardMemoBackup-R277-330
3. R277-330 Reporting Burden and Fiscal Impact Estimate Form

R277. Education, Administration.

R277-330. Utah Effective Educator Standards.

R277-330-1. Authority and Purpose.

(1) This rule is authorized by:

(a) Utah Constitution Article X, Section 3, which vests general control and supervision over public education in the Board;

(b) Subsection 53E-3-401(4), which allows the Board to make rules to execute the Board's duties and responsibilities under the Utah Constitution and state law; and

(c) Subsection 53E-3-501(1)(a), which requires the Board to establish rules and minimum standards for the qualification and certification educators and for required school administrative and supervisory services.

(2) The purpose of this rule is to establish statewide effective educational standards for:

(a) teachers;

(b) administrators;

(c) school counselors;

(d) school psychologists;

(e) speech-language pathologists;

(f) speech-language technicians;

(g) audiologists; and

(h) school social workers.

R277-330-2. Definitions.

(1) "Administrator" has the same meaning as defined in Subsection 53G-11-501(1).

(2) "Educator" has the same meaning as defined in Subsection 53G-11-501(6).

(3) "Utah Effective Educator Standards means:

(a) the Effective Teaching Standards described in Section R277-330-6;

(b) the Educational Leadership Standards described in Section R277-330-7;

(c) the Speech-Language Technician standards described in Subsection R277-306-5(1)(c);

(d) the 2019 American School Counselors Association Professional Standards and Competencies;

(e) the 2020 National Association of School Psychologists Professional Standards;

(f) the 2020 American Speech-Language-Hearing Association Standards and Implementation Procedures for the Certificate of Clinical Competence in Speech-Language Pathology;

(g) the 2020 American Speech-Language-Hearing Association Standards and Implementation Procedures for the Certificate of Clinical Competence in Audiology; and

(h) the 2012 National Association of Social Workers Standards for School Social Work Services.

R277-330-3. Incorporation by Reference.

(1) This rule incorporates by reference:

(a) the 2019 American School Counselor Association Professional Standards and Competencies;

(b) the 2020 National Association of School Psychologists Professional Standards;

(c) the 2020 American Speech-Language-Hearing Association Standards and Implementation Procedures for the Certificate of Clinical Competence in Speech-Language Pathology;

(d) the 2020 American Speech-Language-Hearing Association Standards and Implementation Procedures for the Certificate of Clinical Competence in Audiology; and

(e) the 2012 National Association of Social Workers Standards for School Work Services.

(2) A copy of these resources can be located at the offices of the Utah State Board of Education,
<https://schools.utah.gov/administrativerules/documentsincorporated>, and:
 (a) for Subsection (1)(a), <https://www.schoolcounselor.org/getmedia/a8d59c2c-51de-4ec3-a565-a3235f3b93c3/SC-Competencies.pdf>;
 (b) for Subsection (1)(b), <https://www.nasponline.org/standards-and-certification/nasp-2020-professional-standards-adopted>;
 (c) for Subsection (1)(c), <https://www.asha.org/certification/2020-slp-certification-standards/>;
 (d) for Subsection (1)(d), <https://www.asha.org/certification/2020-audiology-certification-standards/>; and
 (e) for Subsection (1)(e),
<https://www.socialworkers.org/LinkClick.aspx?fileticket=1Ze4-9-Os7E%3D&portalid=0>.

R277-330-4. Establishment of Standards.

(1) The Board hereby establishes the Utah Effective Educator Standards as the foundation of educator development, which includes:

 (a) alignment of teacher and school administrator programs;
 (b) expectations for licensure; and
 (c) screening, hiring, induction, and mentoring of beginning educators in all license areas.

(2) The Utah Effective Educator Standards:

 (a) ensure implementation of Utah's core standards; and
 (b) serve as the basis for evaluation.

(3) The Superintendent shall:

 (a) base the model educator assessment system described in Subsection R277-323-8(1) on the Utah Effective Educator Standards; and
 (b) provide resources, including professional learning opportunities, which assist LEAs in integrating the Utah Effective Educator Standards into educator practices.

R277-330-5. LEA Responsibilities.

(1) An LEA shall develop policies to support teachers, school administrators, and other licensees in implementation of the Utah Effective Educator Standards.

(2) An LEA shall develop and support professional learning experiences in connection with an educator's professional learning plan for re-licensure using the Effective Educator Standards to assess educator progress toward implementation of the standards.

(3) An LEA shall adopt educator assessment systems aligned with the Utah Effective Educator Standards and consistent with Rule R277-323.

(4) An LEA shall use the Utah Effective Educator Standards as a basis for the development of a collaborative professional culture to facilitate student learning.

(5) An LEA shall implement induction and mentoring activities for beginning educators that support implementation of the Utah Effective Educator Standards.

R277-330-6. Effective Teaching Standards.

(1) The Effective Teaching Standards described in this Section:

(a) describe the knowledge, skills, and dispositions that are the hallmark of effective instruction; and

(b) highlight practices associated with effective teaching.

(2) A Utah educator shall demonstrate a commitment to ongoing growth and development of instructional competency within the following areas:

(a) Learners and Learning -- demonstrating attention to the impact of unique learner characteristics on development and growth;

(b) Instructional Design Clarity:

(i) previewing classroom content;

(ii) demonstrating clarity in organizing and sequencing instruction; and

(iii) effective planning for learning and student engagement.

(c) Instructional Practice:

(i) engaging in high quality instructional practices that are data informed;

(ii) exhibiting a collaborative approach to teaching and learning; and

(iii) meeting the learning needs of each student.

(d) Classroom Climate -- creating academic, physical, social, and emotional conditions with emphasis on academic performance; and

(e) Professional Responsibility -- demonstrating an awareness of and adherence to professional and ethical standards within their school and with families and communities, as required in Rule R277-217, Educator Standards and LEA Reporting.

R277-330-7. Educational Leadership Standards.

~~[(1) The Educational Leadership Standards described in this Section describe expectations for school administrators, including:~~

~~—— (a) meeting the Effective Teaching standards;~~

~~—— (b) having the knowledge and skills to guide and supervise the work of educators;~~

~~—— (c) leading the school learning community; and~~

~~—— (d) managing the school's learning environment in order to provide effective, high-quality instruction to all Utah students.~~

~~—— (2) In addition to meeting the Effective Teaching Standards, a school administrator shall demonstrate the traits, skills, and work functions designated in the following areas:~~

~~—— (a) Visionary Leadership — promoting the success of every student by facilitating the development, articulation, implementation, and stewardship of a vision of learning that is largely shared and supported by stakeholders;~~

~~—— (b) Teaching and Learning — promoting the success of every student by advocating, nurturing, and sustaining a school focused on teaching and learning conducive to student, faculty, and staff growth;~~

~~—— (c) Management for Learning — promoting the success of every student by ensuring management of the organization, operation, and resources for a safe, efficient, and effective learning environment;~~

~~—— (d) Community Collaboration:~~

~~—— (i) promoting the success of every student by collaborating with faculty, staff, parents, and community members;~~

~~—— (ii) responding to diverse community interests; and~~

~~—— (iii) mobilizing community resources;~~

~~—— (e) Ethical Leadership — promoting the success of every student by acting with, and ensuring a system of, integrity, fairness, equity, and ethical behavior; and~~

~~—— (f) Systems Leadership — promoting the success of every student by understanding, responding to, and influencing the interrelated systems of political, social, economic, legal, and policy contexts affecting education.]~~

(1)(a) These standards articulate the knowledge, skills, and dispositions that a Utah educator needs to demonstrate to prepare for and serve as a school leader.

(b) These standards provide the foundation for more descriptive competencies, evaluation and accountability criteria, professional training and goal setting, and other supporting tools and resources to meet the state's leadership development goals and objectives.

(2) To elevate student success, promote educator quality and effectiveness, and optimize oversight and accountability, Utah educational leaders apply the following standards:

(a) Vision – cultivating an innovative, student-centered vision and mission that empowers learners through strategic planning and transformative educational practices.

(b) Professionalism and Ethics:

(i) modeling ethical and professional leadership, integrity, self-reflection, and fairness;

(ii) using clear communication and a collaborative approach to be a trusted figure within the school community; and

_____ (iii) actively implementing law, policy, and the Utah Educator Standards.

_____ (c) Culture and Climate – establishing and maintaining a positive culture and climate that fosters inclusivity for students, staff, and community to ensure all individuals have a sense of belonging, are valued, and are safe.

_____ (d) Personnel Support and Supervision:

_____ (i) communicating expectations clearly, effectively, and consistently with staff;

_____ (ii) conducting formal and informal evaluations; and

_____ (iii) providing specific and targeted growth-oriented feedback, professional learning, and support.

_____ (e) Systems Improvement –strategically designing, implementing, and sustaining coherent systems grounded in evidence-based inquiry, shared accountability, adaptive leadership, and continuous data informed school improvement to build organizational capacity and to support each student’s academic success and well-being.

_____ (f) Community Engagement – engaging with parents and stakeholders to partner with the greater community to support each student’s academic success and well-being.

_____ (g) Instructional Leadership – ensuring the use of effective teaching strategies that optimize rigorous, student-centered learning and growth, assessment practices that inform and promote effective teaching, and interventions for individual student learning needs.

_____ (h) Resource and Fiscal Management –professionally and ethically allocating and managing school resource to support teachers and staff and to optimize student learning.

KEY: effective educators, effective leadership, standards

Date of Last Change: October 11, 2023

Authorizing, and Implemented or Interpreted Law: Article X, Section 3; 53E-3-401(4); 53E-3-501(1)(a)



Utah State Board of Education

Official Board Memo
Backup Document

**Title: Utah Effective Educator
Standards**

Draft Number: Draft 1

Date: 07/22/2026

Rule/Statute: [R277-330](#)

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**This draft is for consideration during
the 08/07/2026 Law and Licensing
Committee Meeting:**

UTAH EDUCATIONAL LEADERSHIP STANDARDS Back-up Materials

Introduction

The Utah State Board of Education is committed to a quality learning experience for every student at schools with excellent leadership. The Utah Educational Leadership Standards apply to all school leaders throughout the state, regardless of demographic differences, geography, school type, leadership role, or any other distinguishing characteristic. The Utah Educational Leadership Standards were last updated in 2018. The standards articulate the knowledge, skills, and dispositions that Utah educators need to demonstrate as they prepare for and serve as school leaders. These standards provide the foundation for more descriptive competencies, evaluation and accountability criteria, professional learning, goal setting, and other supporting tools and resources to meet the leadership development goals and objectives of the Utah State Board of Education.



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2026 STANDARDS WRITING COMMITTEE

Committee Facilitator

Principal - UAESP

Principal - UASSP

Principal -Charter

Superintendent - USSA

Superintendent - USSA

Teacher

Local Board - USBA

Local Board - USBA

Parent - PTA

Parent - PTA

Student - USBE Student Advisory

Student - USBE Student Advisory

University - UCEL

University - UCEL

Quinn Kellis, USBE

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Ben Dalton, Kane County

Mika Salas, Carbon County

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Jenna Woodbury, Grand County

Karen Beebe

Aimee Warren

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[REDACTED]

Marilyn Taft, Weber State University

Andrea Rorrer, University of Utah



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DRAFT Utah Effective Leadership Standards (public comment version)

To elevate student success, promote educator quality and effectiveness, and optimize oversight and accountability, Utah educational leaders:

Strand 1: Professionalism/Ethics

Standard: model ethical leadership, integrity, fairness, and equity, utilizing clear communication and a collaborative approach to establish themselves as trusted figures within the school community, and actively implement the Utah Educator Standards and local codes of ethics.

Strand 2: Culture and Climate

Standard: establish and maintain a positive culture that fosters inclusivity for students, staff, and community to ensure all individuals have a sense of belonging, are valued, and are safe.

Strand 3: Personnel Support and Supervision

Standard: communicate expectations clearly, effectively, and consistently with staff; conduct scheduled evaluations; and provide specific and targeted growth-oriented feedback and support.

Strand 4: Systems Improvement

Standard: strategically design, implement, and sustain coherent systems grounded in evidence-based inquiry, shared accountability, adaptive leadership, and continuous school improvement to build organizational capacity and ensure each student's academic success and well-being.

Strand 5: Community Engagement

Standard: engage with parents, guardians/caretakers, and stakeholders to partner with the greater community; ensure every child becomes a part of their community by collaborating with community partners; and connect families to resources.

Strand 6: Instruction

Standard: ensure effective teaching strategies that optimize student learning, assessment practices that inform instruction, and interventions to target individual student learning needs.

Strand 7: Resource Management

Standard: professionally and ethically allocate and manage school resources to support teachers/staff and to optimize student learning.

Strand 8: Vision

Standard: cultivate an innovative and student-centered vision that empowers learners through strategic planning and transformative educational practices.



Utah State Board of Education

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DRAFT Utah Educational Leadership Standards (edited with tracking)

To elevate student success, promote educator quality and effectiveness, and optimize oversight and accountability, Utah educational leaders:

Standard 18: Vision - cultivate an innovative and student-centered vision and mission that empowers learners through strategic planning and transformative educational practices.

Standard 12: Professionalism/Ethics - model ethical and professional leadership, integrity, self-reflection, and fairness; and equity, utilizing use clear communication and a collaborative approach to establish themselves as trusted figures within the school community, and actively implement law, policy, and the Utah Educator Standards. and local codes of ethics.

Standard 23: Culture and Climate - establish and maintain a positive culture and climate that fosters inclusivity for students, staff, and community to ensure all individuals have a sense of belonging, are valued, and are safe.

Standard 34: Personnel Support and Supervision - communicate expectations clearly, effectively, and consistently with staff; conduct scheduled formal and informal evaluations; and provide specific and targeted growth-oriented feedback, professional learning, and support.

Standard 45: Systems Improvement - strategically design, implement, and sustain coherent systems grounded in evidence-based inquiry, shared accountability, adaptive leadership, and continuous data informed school improvement to build organizational capacity and ensure to support each student's academic success and well-being.

Standard 56: Community Engagement - engage with parents, guardians/caretakers, stakeholders to partner with the greater community; ensure every child becomes a part of their community by collaborating with community partners; and connect families to resources to support each student's academic success and well-being.

Standard 67: Instructional Leadership - ensure the use of effective teaching strategies that optimize student rigorous, student-centered learning and growth, assessment practices that inform inform and instruction promote effective teaching, and interventions to target for individual student learning needs.

Standard 78: Resource and Fiscal Management - professionally and ethically allocate and manage school resources to support teachers/staff and to optimize student learning.

Standard 8: Vision - cultivate an innovative and student-centered vision and mission that empowers learners through strategic planning and transformative educational practices.



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DRAFT Utah Educational Leadership Standards 2026 (edited)

To elevate student success, promote educator quality and effectiveness, and optimize oversight and accountability, Utah educational leaders:

Standard 1: Vision - cultivate an innovative, student-centered vision and mission that empowers learners through strategic planning and transformative educational practices.

Standard 2: Professionalism/Ethics - model ethical and professional leadership, integrity, self-reflection, and fairness; use clear communication and a collaborative approach to establish themselves as trusted figures within the school community, and actively implement law, policy, and the [Utah Educator Standards](#).

Standard 3: Culture and Climate - establish and maintain a positive culture and climate that fosters inclusivity for students, staff, and community to ensure all individuals have a sense of belonging, are valued, and are safe.

Standard 4: Personnel Support and Supervision - communicate expectations clearly, effectively, and consistently with staff; conduct formal and informal evaluations; and provide specific and targeted growth-oriented feedback, professional learning, and support.

Standard 5: Systems Improvement - strategically design, implement, and sustain coherent systems grounded in evidence-based inquiry, shared accountability, adaptive leadership, and continuous data informed school improvement to build organizational capacity and to support each student's academic success and well-being.

Standard 6: Community Engagement - engage with parents, guardians/caretakers, stakeholders to partner with the greater community to support each student's academic success and well-being.

Standard 7: Instructional Leadership - ensure the use of effective teaching strategies that optimize rigorous, student-centered learning and growth, assessment practices that inform and promote effective teaching, and interventions for individual student learning needs.

Standard 8: Resource and Fiscal Management - professionally and ethically allocate and manage school resources to support teachers and staff and to optimize student learning.

Please note that once the State Board approves these standards, work will begin on more detailed leadership competencies, toolkits to practically implement the standards beyond theory, a model leadership evaluation system, professional learning, and other leadership tools.



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Public Comments and Writing Committee Responses

Comment	Standard Change	Competency	Evaluation	Toolkit	Professional Learning	Parking Lot	No Action
There should be financial courses included, and how to effectively manage and make the most out of a budget, not just to make things work for a year, but for years to come.	Changed title to "Resource and Fiscal Management"	X					



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Financial training could be included in Resource Management, maybe add the following under Resource Management: "...allocate and manage school resources through demonstrated financial literacy, including budgeting, forecasting, and data-informed fiscal decision-making, to support teachers/staff and optimize student learning."		X This fits well as a competency under Fiscal and Resource Management.	X				
These proposed changes are more specific, actionable leadership behaviors. There is a clearer alignment to evaluation and accountability with a stronger emphasis on							X



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systems, instruction, and community.							
Standard 1 - this is more clear and actionable							X
Standard 2 - adds belonging, inclusivity, and safety explicitly and aligns more directly with students well-being - which is an interesting shift given the current political climate which seems to be negatively targeting SEL in our schools.							X
Standard 3 - emphasis on feedback, expectations, supervision cycle specifically							X



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Standard 4 - great improvement - strong alignment to continuous improvement cycles (PLC/CTM, MTSS, PBIS)							X
Standard 5 - this is a better match to current practice							X
Standard 6 - this is more condensed with specific focus on teaching strategies, assessment, and interventions.							X
Standard 6 - potential weakness - may be underdeveloped compared to the current standard						X	
Standard 7 - provides clarity and accountability							X



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Standard 8 - moves vision to one standard, when it should remain foundational and embedded across all standards - want to avoid a checklist!	Moved to Vision Standard 1						
One notable strength is the increased emphasis on building inclusive school cultures that foster belonging and safety for all students and staff.							X
The clearer expectations around personnel support and supervision provide a more actionable framework for leader evaluation and growth.							X



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Instructional leadership, which is central to student outcomes, appears less developed in the proposed standards compared to the current framework and could be expanded to emphasize teacher development, rigor, and student-centered learning.	Changed Standard 6 title to 'Instructional Leadership' Changed Personnel Support to: ...feedback, professional learning, and support." Changed Instructional Leadership to '...optimize rigorous, student-centered learning and growth...'	X Emphasize the connection between optimize and growth.					
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I find these well considered and their language points towards improvement.							X
I wonder if explicitly mentioning "mission" and "core values" in the Vision standard would be useful?	Added 'mission' to Vision						
I would prefer that the "Strands" be called "Standards." That title seems more consistent with the language of other standards documents?	Change made						
These standards are clear and feel the closest that I've seen to your accurately describing my job.							X
The standards reflect the right priorities, and I understand the need for							X



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them to be written at a general level.							
They assume leadership effectiveness without addressing the disciplined practices that make that effectiveness possible—such as time management, priority alignment, and intentional daily leadership behaviors.		X					
There is little guidance on the systems and routines leaders need to ensure consistent execution. For example, there is no clear expectation that leaders establish structures for prioritizing their time, consistently monitor instruction through walkthroughs and feedback cycles, or		X					



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regularly track progress toward school goals.							
The standards are not particularly useful for helping leaders form a clear mental model of what effective practice looks like day-to-day. They are also difficult to use as a tool for developing principals and building the capacity of both school and district leaders. Without more specificity, examples, or indicators (which are likely coming) they remain conceptual more than actionable.		X		X			
Looks great							X
To the team who put these together—thank you. I appreciate the work and the thought behind it.							X



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A lot of this feels pretty general and generic. I don't disagree with any of it, but it reads more like the baseline than something that actually pushes the work forward.						X	
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Historically, districts tend to select leaders from a pretty similar mold, often former coaches, which brings a certain level of leadership and accountability. But it hasn't really moved the needle in how schools operate. We've been largely the same for my entire 20+ year career, and then we all turn around and post the same quote on LinkedIn: "Insanity is doing the same thing over and over again and expecting different results." But the truth is, that's exactly what we keep doing. I include myself in that.							X
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So the real question for me is how we actually raise the bar. How do we inspire and develop leaders who are willing to push limits and break the mold? It reminds me a lot of PLCs. Districts have poured huge amounts of time and money into “implementing” them, but in many cases it feels more like a paper tiger. We use the language, but the impact hasn’t matched the investment in any significant, system-wide way.							X
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Terms like “innovative” and “student-centered.” We say them, but that’s not consistently what’s happening. Systems this large struggle to truly innovate, and authentic student voice often gets quieted because it’s hard to manage. Over time, those words start to lose meaning.						X	
We’re seeing a major shift with students leaving for online options. That should make us pause. If students truly felt empowered and actually had a voice, would we be seeing that kind of movement?							X



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I appreciate the effort from this team. It's not easy to take on work at this level and try to define it in broad terms.							X
I just think this is an opportunity for us to push beyond the language and really examine what it would take to do things differently.							X
Standard 5 states that evaluations must be "scheduled". This implies that observations, which are often part of the evaluation process, also need to be scheduled. Observations shouldn't always be scheduled. The word "scheduled" should be removed.	Changed Instructional Leadership to 'formal and informal observations'						



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I noted that communication is mentioned under personnel support and supervision. It might be worth considering that communication is also about active listening, from the other person's perspective, with grace, patience, and an open mind to alleviate the us-and-them narrative. Leadership is not just about managing things; it is about inspiring others and making them feel heard, seen, and appreciated.		X					
Leadership also entails negotiating and problem-solving with all stakeholders with critical		X					



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thought and good intentions.							
Problem-solving skills and Communication would be two main areas I would ensure to highlight as requirements to help define Utah Effective Leadership Standards.		X					
Strand 6 should be more focused around instructional leadership instead of instruction. The way that it is currently written makes it read more like it is for teachers.	OK - Changed title to Instructional Leadership						
Strand 4 could benefit from adding in some discussion of using data and making data informed decisions	Changed Standard 4 to ...and continuous data-informed improvement ...						



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Strand 5 could benefit from some mention of student voice		Include with Culture standard competency					
I think they are great and well written.							X
As a charter school director, it would be under my stewardship to fulfill all of these, including the resource management. However, as a district principal, the allocation of resources and the vision for the school may not be under their scope, because it is done on a district level.						X	
These look good- I approve of these. They make sense to me. Just some grammatical errors.							X



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I think these are great areas to focus on as leaders.							X
It does seem like a lot. I liked when the Effective Teaching Standards went from 10 to 5 or something like that. It was much easier to observe and record evidence. As I present my self-evaluation to the governing board each year, this is a lot to gather evidence for, but I'm not opposed to it, as long as there are fewer indicators under each standard and not 5-8 in each one.						X	
Thank you for your work in rewriting these!							X
Well Done							X



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Stands 3 - 'Promote a positive and professional work environment through a variety of strategies, including...'							X
Standard 5 - I'm not sure it is a realistic expectation to require principals to "ensure every child becomes part of their community by collaborating with community partners." I would suggest the principal should be responsible for ensuring each child feels part of the school community within the school, but not have the obligation to ensure they are connected to the broader community outside of school.	Changed System Improvement to ...and support each student's... Changed Engagement to ...to support each student's academic success and well-being...						



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Standard 6 - It looks like we need to add what the principal is ensuring. Do we want them to "ensure the application of effective teaching strategies..." or do we change the language to "promote effective teaching strategies?" We need to have the principal do something with the strategies beyond ensuring them.	Changed Instructional Leadership to ...promote effective teaching...						
I think the others look good. Thank you!							X



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Being involved in a Leadership Lab at LPA has made me appreciate our administration more. I never realized how much they had on their plates that is unseen from a teacher perspective.							X
Strand 2 and strand 5 were my favorite to dive deep in to because of the changing cultures in Utah, and trying to find ways to engage parents in student learning.							X



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The resources available through the leadership classes have helped me reshape my thinking in my classroom. I would recommend that anyone interested in a leadership position to at least read and understand these strands.							X
I think the standards look great and sufficiently describe the role of a school administrator.							X
The standards align with what I would evaluate.							X
I think these look good. Thank you for the work you're doing.							X



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Are there sub standards for each strand, or this is it? I like the reduction of sub standards. The way strands are currently written is overwhelming and repetitive.						X	
Vision should be first not last.	Moved to the top						
These standards are appropriate for administrators.							X
I like these with the assumption district leaders have the skill to use them to evaluate school leaders. Will there be a guiding rubric?			X		X		



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Will a rubric for meeting the standards accompany these standards. Some of these standards are very heavy and could be very subjective. For instance standard 4 has a lot to unpack. I feel it would be important to have a rubric or objectives with the standards so the expectation is clear for those being evaluated.			X				
This seems to cover everything succinctly.							X
Clear and concise							X
I think these are great. Thanks!							X



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I like these a lot better than the current standards. These feel more aligned with our actual jobs and aren't so overwhelming. You would have to be a robot to be highly effective in the current leadership standards.							X
The standards seem good. True measurement of them will be based on the indicators.							X
Standard 1 has always frustrated me, because a person is either ethical or not. Please consider an indicator that is just yes or no for Standard 1			X				
There could be other indicators of		X					



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professionalism within Standard 1.							
Strand 1: Take out Equity. Take out "Local" in codes of ethics.	Changed Professionalis m/Ethics to: 'Model ethical and professional leadership, integrity, and fairness use...' Changed Professionalis m/Ethics to: '...law, policy, and the Utah Educator Standards.'						
Strand 2: Nothing about the climate aspect. Culture and climate are related, but not the same thing.	Kept Culture and Climate title.						X



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Strand 4: take out "evidence-based inquiry, shared accountability, adaptive leadership" because it doesn't mean anything. Nonsense jargon.							X
Strand 5: take out "caretakers" since guardian essentially means the same thing. Take out "ensure every child becomes a part of their community by collaborating with community partners;" because this is something you can't ensure.							X
Strand 6: This whole strand seems like it fits better under a coach or mentor role. I think you can get rid of this one and							X



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include aspects under Strand 3 or 4.							
Strand 7: you are implying budgets, but should you be explicit?	Changed title to "Resource and Fiscal Management"	X					
Strand 8: This one seems thrown in there. Again, get rid of it because it could fall under Strand 3 or 4.	Moved to Standard 1						
There needs to be something about educational law and policy. I suppose it could fit under Strand 1, but it needs to be explicit.		X					



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In strand 3 as it pertains to evaluations. While scheduled evaluations are wonderful - I worry that by adding it into the standard, it locks us into always scheduling evaluations and limits our ability to conduct unscheduled observations and evaluations. Would it be possible to change that world to "Educator Evaluations" or simply take out the word scheduled altogether?	OK - changed to 'formal and informal observations.'						
I think these standards sound great!							X
I appreciate the adjustments made within some of the strands to ensure alignment with							X



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current school leadership needs.							
On standard two I think you should remove the word "and" after culture, it would read, "establish and maintain a positive culture that fosters.."	Removed unnecessary words						
I think the standards listed above encompass the responsibilities of an administrators quite well!							X
Looks great!							X
They look great! Straight forward and easy to understand							X
I would recommend moving vision from Stand 8 to Strand 1.	Moved to Standard 1						
Not sure how parents will respond to Strand 5.							X



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On the first read, these statements seem fine. Given the context of our state, I understand that we cannot use specific words without being unduly targeted. However, I do wish to point to research by Ann Ishimaru and Mollie Galloway, who examined leadership standards and identified the flaws in not explicitly and clearly attending to equitable outcomes and learning environments.						X	
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The statements on instruction, staff supervision, school vision, and resource management do not emphasize the need for EACH AND ALL learners and personnel to experience safety, well-being, being valued, excellence in performance and effort, and growth.	Suggestion: Add an Introduction that these standards apply to all students, all entities, etc.			X			
I am confused about "local codes of ethics" and uses of "professionally" and "ethically" throughout. If these are not defined in the strands, what are we basing these descriptors on?	Removed "local codes of ethics"						



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There are also a lot of words in the "instruction" and "systems improvement" strands that refer implicitly to frameworks and research bases that should be linked to, or else they are too vague. For instance, "adaptive leadership" can mean anything to anyone. How will we define what is our baseline expectation?	Suggestion: Add a resource repository of relevant articles, citations, glossary of terms, etc. Reference the toolkit in the Introduction.	X		X			
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Standards are difficult because they have to serve a hugely disparate population, but my concern is that such vagueness leaves administrators and system leaders vulnerable to being a) unfairly evaluated, b) subject to retaliation, or c) not held accountable to what they should or should not be doing. We need standards to project the expectations and vision of leadership. We need standards to protect leaders who are doing the best by research and by students and the whole school community, even if a small number of individuals disagree. And						X	X
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we need standards to provide a set of expectations on which preparation, evaluation, practice, and performance can be based.							
I understand that some kind of manual will flesh out these strand statements. I am highly concerned that they will not offer appropriate or adequate guidance without addressing some of these issues of serving EACH and ALL learners, a whole school community, and an ambitious vision for instruction, systems, and culture/climate.						X	



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There is also no mention of how leaders can or should responsibly use and monitor the implementation of emerging technologies.				X Applies to all Standards			
I like them. I feel that they include all the standards that a great administrator endeavors to accomplish at their school site.							X
I like the simplicity of the effective leadership standards and look forward to viewing the details of the leadership competencies.							X
Vision is vital so maybe it should be the first standard.	Moved to the top						
Looks good to me							X



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I really like the reorganization, especially the focus on systems improvement and personnel support and supervision.							X
Strand 4: Systems Improvement - Standard: strategically design, implement, and sustain coherent systems grounded in evidence-based inquiry, clear ownership and accountability for results, adaptive leadership, and continuous school improvement to build organizational capacity and ensure each student's academic success and well-being.	Introduction: The intent of these standards is to support goal setting, accountability and results.						



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Strand 3: Personnel Support and Supervision - Standard: communicate expectations clearly, effectively, and consistently with staff; conduct scheduled evaluations; provide specific and targeted growth-oriented feedback and support; and hold self and others accountable for performance and professional expectations.	Introduction: The intent of these standards is to support goal setting, accountability and results.						
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Strand 1: Professionalism/Ethics - Standard: model ethical leadership, integrity, fairness, and equity; utilize clear communication and a collaborative approach to establish themselves as trusted figures within the school community; actively implement the Utah Educator Standards and local codes of ethics; and demonstrate personal accountability for decisions, actions, and outcomes.	Introduction: The intent of these standards is to support goal setting, accountability and results.						
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Standard 6 doesn't flow well to me. I would suggest something to include the use of instructional strategies such as: "Ensure the use of effective teaching strategies that optimize student learning, assessment practices that inform instruction, and targeted interventions to meet individual student needs."	Added 'use of'						
While not directly tied to these, I would suggest discouraging the use of anonymous surveys as part of the evaluation based upon current research. I know districts fall back to those with evaluations (likely due to ease), but they provide very little, if any valuable information and can be detrimental to organizations.						X	
Love these!							X



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Something that you might consider is adding into all of the strands is how the state and the districts will be supporting administrators who are making good decisions based on the strands. As people become more embolden to abuse school officials we should be looking for ways to support them in following these strands and holding all leaders to the strands we create. If your strands do not indicate to administrators, future administrators and the public what the state and districts are going to do to support administrators in following the strands the effort misses the boat. The support can't be implied it needs to be spelled out.						X	
It sounds good. We work to make things fit for the School for the School for the Blind.							X



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I feel like these standards are appropriate.							X
Why are there strands and standards? That seem overly complicated. There are 8 standards with a short description of each.	Usage of Strands was deleted.						



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These strands provide a strong structural starting point, but they lean heavily on idealized expectations and assume a level of applied judgment that is not inherently present in all leaders. The language reflects what leaders should do, but not how they learn to do it when situations are unclear or unknown. In practice, “common sense” is not common. It is developed through experience, missteps, feedback, and reflection. Leadership standards that do not acknowledge this risk promoting a surface-level understanding of the role. This becomes especially clear when comparing Strand 3 (Personnel Support and Supervision) and Strand 4 (Systems Improvement).							X
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Strand 3 centers on communication, evaluation, and feedback, but reads as procedural. In reality, supervision lives in difficult conversations, not scheduled evaluations. It shows up when a staff member resists feedback, when someone is struggling but trying, or when performance does not improve despite support. Leaders must learn how to be direct without eroding trust, how to navigate emotional responses, and how to follow through when accountability is required. These are not intuitive abilities. They are learned through repeated, real interactions where outcomes are uncertain.		X			X		
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Strand 4, by contrast, operates at the systems level and emphasizes strategy, coherence, and continuous improvement. While conceptually strong, it is disconnected from the conditions that cause systems to succeed or fail. Systems do not break on paper. They break when people are overwhelmed, unclear, or unconvinced. Leaders must learn how to champion change, respond to pushbacks without losing direction, and adjust when implementation does not go as planned. The current language assumes stability and alignment, while reality is often conflict and exhaustion.		X			X		
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The contrast between these strands exposes a broader gap. Strand 3 is grounded in human interaction but does not fully address the complexity of those interactions. Strand 4 is structurally sound but lacks connection to the lived experiences that shape implementation. Both rely on an unspoken assumption that leaders already possess the judgment needed to operate effectively across these spaces.							X
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If these standards are meant to guide leadership development, they should more directly acknowledge that this judgment is built, not assumed. Leaders need opportunities to grapple with conflict, ambiguity, resistance, and compromise. They need to learn how to act when there is no clean answer and no guaranteed outcome. Without that grounding, the standards risk describing leadership in theory while leaving leaders unprepared for practice.						X	
I really like the way Strand 4 is worded and encompasses all critical elements of that standard.							X
Strand 8: Sometimes the words "innovative" and "transformative" can create a large range of interpretation and therefore ambiguity. Wondering if something more like "evidenced based" educational practices.	Kept current language.						X



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I like how Strand 3 includes the qualifier "Growth oriented" in regards to feedback and support. Wondering if something needs to be added about more informal walk throughs/feedback etc. The word "consistent" may imply that. It's critical to go beyond scheduled appointments to give feedback that moves teachers forward	Changed 'scheduled' to 'formal and informal'						
Really like how Strand 5 & 7 are written and would not change anything.							X
Standard 3: Leadership entails cultivating future leaders by setting clear expectations, conducting regular reviews, and providing the specific feedback and time required for growth.	Current language covers these comments.						X



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How do you propose to evaluate these teachers with the above strands? Please remember, if you want teachers to teach, you need to allow them to focus on teaching and not have their focus diverted by additional paperwork/assignments that take away from their students.						X	
I love how it focuses on the students and the community and building something bigger and better for those we teach and serve in the community.							X
These are great							X
All the strands are relevant, needed and appropriate.							X
Love it!							X
Utah educational leaders (ADD the Following) practice the following core standards: Strand 2: ...establish and maintain a positive culture (DELETE 'and') that fosters ...	Unnecessary words were deleted						



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Strand 4: ...evidence-based inquiry, ... CHANGE to ...evidence-based practice, ...	Kept current language.						X
Well rounded standards- I approve.							X
Sounds good!							X
As a director in the district I work it, I see too many teachers also taking a lot of days off. I don't know how you could word this, but in Standard 1, I would love to see something about attendance, or something about the integrity of showing up each day. This way, when you are doing evaluations, you have an area that addresses attendance of staff. I believe it is important to show up each day, for student outcomes and for setting the example. If you have a district that doesn't have a great attendance policy for teachers, maybe the Standards can have this as part of being professional? Just a suggestion. Otherwise, these look great!							X



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Strand 2: replace all individuals with each and every individual	Will include in Introduction.						
Strand 3: should evaluations take place at least once a year?			X				X
Strand 4: include the use of data	data was added						
Strand 5: replace -every child is represented and included in their community	This standard was re-written						X
Strand 6: Include collaboration and the use of data	'Collaborative' is in Professionalism/Ethics. Restored 'inform' in Instructional Leadership	X					
Thank you for you work on this!							X
7 is redundant jargon, possible change... Distribute materials, funding, and personnel equitably to ensure teachers have the necessary tools for effective instruction	Current language covers these comments.						X



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8 - too many action verbs needs simplified	Kept current language.						X
This looks great. I appreciate all 8 standards but #3 is key. Communication!							X
All children should have the opportunity to attend our preschool programs and we need to reduce the amount of assessments we give, and we need to stop catering to "other cultures" and stick to teaching the basic educational skills to succeed.							X
These all sound good. I feel that working in the Early Childhood field I have definitely seen that there has been a trend of things becoming more and more "academic" being pushed younger and younger. I think we need to allow the children to learn in developmentally appropriate ways that aren't rote memorization, worksheets, and tracing (as examples).						X	



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I feel the standards fit well.							X
This is totally unnecessary and a waste of time and money							X
These are well thoughtout.							X
My first suggestion would be to consider reordering the various strands. When it comes to using these standards for actual administrator evaluations I expect that all will be treated as important, however, order does suggest some hierarchy of importance. Having "Vision" as Strand 8 doesn't seem to fit, given that one of a school leader's most important roles is to help create and steward the vision for the school, including goals for the school. I would expect it to be higher on the list, if not the first strand listed.	Moved to Standard 1						



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Similarly, given the inherent purpose of schools for learning, I would expect that the strand on "Instruction" would be higher on the list than strand 6.	All of these are important and non-hierarchical						X
Strand 1: Professionalism/Ethics - Standard: model ethical leadership, integrity, fairness, and equity; utilize clear communication and a collaborative approach to establish themselves as trusted figures within the school community; actively implement the	Changed to 'use'						



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Reflective practice and a focus on self-development is another critical leadership competence that I think is worth emphasizing in the standards and that could potentially fit within the "Professionalism" strand. Continuous professional learning is an important element that is included in the Utah Effective Teaching Standards, but I don't see that same sentiment stated within these leadership standards as they are written. And yet the competence for leaders to engage in reflective practice and continuous professional learning and self-development is really a meta-competence that will serve to enhance all other leadership competencies. And when articulating this competence for professional learning or self-development, I think it's worth keeping in mind all of the ways that leaders grow so as to ensure that however the standard or	Added 'self-reflection' to Professionalism standard.						
60							



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competence is written doesn't suggest only particular ways to grow as a professional (i.e., stating it as "professional development" suggests a narrow connotation of attending workshops or conferences). As a school leader myself, some of my most important learning is engaging in reflective practice, taking advantage of mentoring from my supervisor and other trusted leaders, as well as taking the initiative to reach out and ask questions from all of the people that can support you in the district and the field as a whole.							
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Strand 2: Climate and Culture One of the ultimate goals of a positive and psychologically safe work culture is to drive more effective collaboration among teachers and staff. Amy Edmondson's books have some great insights about the nature of such collaboration and teaming and psychological safety, and I think it's work making explicit in the standards that school leaders are to foster such collaboration among their people (whether that belongs in the Strand on Climate & Culture or Personnel Support & Supervision could be debated).	'Collaborative' is in Professionalism/Ethics.	X					
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Strand 3: Personnel Support & Supervision Consider adding a standard or competence around emotional intelligence. Effective supervision and support of staff requires high levels of emotional intelligence on the part of school leaders, specifically competencies around self-awareness, self-management (i.e., self-regulation), and social awareness (including empathy, active and reflective listening). Additionally, the ability for a leader to cultivate emotional intelligence in others is a critical skill set. The Collaborative for Academic, Social, and Emotional Learning (CASEL) has some good resources and literature around these areas.					X		
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Strand 8: Vision Define "transformative educational practices" - this sounds aspirational, and there are specific definitions of "transformative leadership" in the literature, but stated as is its ambiguous, and therefore less helpful as a standard. For example, a critical "transformative educational practice" that helps drive vision is the ability for a school leader to provide greater perspective to help teachers expand their view of what's possible for students, themselves, and the school as a whole. An additional "transformative" practice to include as a standard is priority management, including strategic selection of goals and focus amidst a sea of competing priorities.	Kept current language.						X
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I'm sure that at least some of, if not all of, my suggestions above have already been considered by the writing committee, but I see these as worthy of making explicit in these standards however they end up being written. So thank you for allowing the public an opportunity to provide feedback.							X
Change out Equity for equality in standard 1.	Removed 'equity' which is included in 'fairness'						



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Standard 2 should focus on a culture of a learning environment where all students can succeed and make progress, inclusivity, and belonging should naturally take place in environments that are established to help all children succeed. By focusing in on inclusivity and belonging, I believe, takes away from creating the most successful learning environments.. focus on educational opportunities and learning environment.							X
Standard 8 Instead of saying transformative educational practices, it should say vigorous and engaging learning opportunities.	Covered in Instruction						X
The above standards are appropriate							X
These standards are well written. I am looking forward to the see how they will be implemented and the specific competencies to match.							X
Excellent!							X



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Strand 1: Professionalism/Ethics Suggested Language: Model and uphold ethical leadership by demonstrating honesty, integrity, fairness, and humility; communicate expectations clearly and consistently; apply policies and decisions in a transparent and impartial manner; and implement and enforce the Utah Educator Standards, applicable laws, and local codes of ethics.	Character traits cannot be an all-inclusive list and difficult to evaluate.						X
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Suggested Strand 2 (New): Physical Safety: it seems a big oversight to not have a specific strand regarding physical safety - this is usually our parent's #1 concern for their children and it seems USBE should assign accountability for it to their school leaders. Suggested language: Strand 2: Physical Safety Establish and maintain a physically safe school environment by implementing and enforcing clear policies, procedures, and accountability systems aligned to applicable law and best practices; providing regular training and drills for staff and students; maintaining secure facilities and controlled access; establishing clear reporting and response protocols for safety concerns and incidents; and ensuring all stakeholders understand expectations and are provided opportunities to	Given the many current laws pertaining to school safety, this is included in Professionalism/ Ethics with 'actively implement law, policy...'. It is included in Culture and Climate with "safe". The many many details to implement safe school policies are best outlined in competencies.	X		X			
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work together to identify, prevent, and respond to safety risks.							
Strand 3: Culture and Climate (if #2 were added, this would become Strand 3) Suggested Language: Establish and maintain a positive school culture that fosters inclusivity for students, staff, and community; promotes a sense of belonging and being valued; and implements and enforces clear policies, training, reporting pathways, and accountability systems to ensure materials or instruction defined as sensitive or political, including any form of political advocacy or indoctrination outside Utah code or standards, are not existent in the school, that student exposure is prevented, and that all stakeholders understand this standard and are provided opportunities to work together to achieve and maintain compliance.	Included in Professionalism/ Ethics, '...actively implement law, policy and the Utah Educator Standards.	X			X		



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Strand 4: Personnel Support and Supervision - leaving out the important aspects of providing effective training and positive motivation to staff seem to be deficiencies here.	'professional learning' was added to Personnel Support. Culture and Climate includes 'positive'.						
Strand 5: Systems Improvement Suggested language: Strategically design, implement, and sustain coherent systems grounded in reliable data and established research, define clear roles and responsibilities for accountability, and guide continuous school improvement to build organizational capacity and support each student's academic success and well-being.	'data-informed' added to Systems Improvement. 'inform' added to Instruction.						



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Strand 6: Community Engagement Suggested language: "Engage with parents, guardians/caretakers, and stakeholders to build partnerships with the broader community; collaborate with community partners to expand opportunities for student engagement and participation; and connect families to available resources."		X		X			
Strand 7: Instruction - Add: when ineffective teaching is found, the school leader coaches the teacher to improvement or terminates the teacher.	Covered in Professionalism/ Ethics with 'policy'						X



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Strand 9: Vision Suggested language: Develop, communicate, and implement a clear, student-focused vision aligned to academic goals; engage and motivate stakeholders in that vision; and use strategic planning to guide and evaluate progress toward implementation of the vision, to include improved student outcomes.	Covered in multiple other standards: Vision - 'Student-centere d', Systems Improvement - ' to support each student's academic success', Instructional Leadership - 'student-centere d learning and growth'...						X
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Extra Feedback for adhering to Utah laws and code: Strand 1: Professionalism/Ethics Legal Conflict: "Equity" is often tied to DEI initiatives prohibited under HB 261. Recommended Revision: "...model ethical leadership, integrity, and fairness in providing equal opportunities to all students and staff, utilizing clear communication and a collaborative approach..."	Removed 'equity' which is included in 'fairness'						
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Strand 2: Culture and Climate Legal Conflict: "Inclusivity" and "belonging" are common DEI keywords. Recommended Revision: "...maintain a positive culture that ensures a safe and respectful environment where all students and staff have equal access to educational and professional opportunities and are valued for their individual contributions."	These terms are separated from the DEI terminology and are referenced to other applications as defined in Culture in Climate...'to ensure all students have a sense of belong, are valued and are safe.'						X
Strand 4: Systems Improvement Grammar/Clarity: The term "adaptive leadership" is jargon that lacks a precise legal definition in Utah Code. Recommended Revision: "...sustain coherent systems grounded in evidence-based inquiry, shared accountability, and effective leadership practices to build organizational capacity..."	Kept current language.						X



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Strand 5: Community Engagement Conciseness: The phrase "part of their community" is redundant when preceded by "partner with the greater community." Recommended Revision: "...partner with parents, guardians, and the greater community to connect families with resources that support student success and well-being."	Reference to students becoming part of the community was removed.						
Strand 8: Vision Conciseness: "Transformative" is subjective and lacks measurable criteria. Recommended Revision: "...cultivate a student-centered vision that empowers learners through strategic planning and proven educational practices."	Kept current language.						X



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Standardize Language: Replace "Equity" with "Equal Opportunity" to align with HB 261	Removed 'equity' which is included in 'fairness'						
Remove Jargon: Delete words like "adaptive," "transformative," and "inclusivity" to ensure the standards are "clear and concise" as required for public review.	Kept current language.						X
Grammar Fix: In Strand 1, ensure "Utah Educator Standards" is properly capitalized and linked to the actual Board Rule (R277-515) for legal precision.	Capitalized, added link to R277-217 (there is no R277-515)						
This looks good.							X
I would add something more about managing behaviors. I know it should be covered in culture, etc. But, with the behaviors we are seeing now days, it is VERY important that principals take a firm lead in this.		X					



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These look great. Thank you!							X
I love these standards! I think they give comprehensive expectations of what a school leader should be striving for.							X
I like these standards. They are written to include the important components within each standard. A good overall statement - then additional indicators can be added to support each strand.							X
This looks good 😊							X



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Overall, I feel the standards are thoughtful, student-centered, and reflective of the many responsibilities educational leaders carry today. I especially appreciate the emphasis on culture and climate, community engagement, and systems improvement, as these areas are critical in supporting both student success and educator effectiveness.							X
One suggestion I would offer is to ensure that the standards recognize the unique challenges and strengths of rural schools and small communities. Educational leaders in these settings often serve in multiple roles and rely heavily on strong relationships, flexibility, and community partnerships to meet student needs. Including language that acknowledges diverse school contexts would strengthen the standards and make them more applicable statewide.							X



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I would also encourage the continued focus on supporting and retaining educators through mentorship, collaboration, and meaningful professional growth opportunities. Effective leadership is one of the most important factors in creating positive school environments where both students and staff can thrive.							X
Thank you for the opportunity to provide input and for the work being done to strengthen educational leadership across Utah.							X
I like what I am seeing in each standard.							X
I would change the order and put Instruction, our core mission, as Standard #1.	No one standard is more important than another						X



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The ability to analyze data is critical in multiple standard areas. This includes comprehensive needs assessments, classroom observation data for identifying trends, budget, and financial analysis to ensure plans address needs, retention, behavior, etc. I believe this needs to be added to at least one of the standards.		X		X			
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There is also a significant compliance component to leadership in Utah, with everything from the School Land Trust to behavior. This is often in the professional standards, but it should be integrated into the management component of leadership. Having evaluated principals for many years, this is an area we often see that principals sometimes just want to do what they want to do and struggle with understanding they are a "public" school principal and must follow policies, laws, rules, and code.	Covered under Professionalism						X
Strand 1 could be streamlined in terms of wordiness--or at least add some punctuation (i.e. communication is already mentioned in Strand 3)	Kept current language.						X
Strand 2 is succinct and clear.							X



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Stand 6: some adjustment to the structure of the sentence (the final phrase "interventions to target...could be tweaked so it reads more clearly)	Changed 'to target' to 'for'						
Strand 8: "transformative educational practices" (is this phrase too vague?)	Kept current language.						X
Thanks for the efforts to clarify these standards!							X
How do you measure vision? Principals should share their vision, but measuring it may be difficult.						X	
In Strand 3, you could include coaching, mentoring, and helping teachers grow professionally.	Covered by 'support'	X		X			
To strengthen Strand 6, you could specifically mention "evidence-based instructional practices and strategies" instead of only saying "effective teaching." You could also include using data to guide instructional decisions and support student learning.	Added 'inform'						



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Overall, the standards recognize the many responsibilities of educational leaders and provide a strong foundation for future competencies and evaluation tools.							X
Build professional capacity by developing quality leadership within our teaching staff and intentionally preparing future school leaders. (under effective leadership standards.) just a thought						X	



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While I recognize the value and intent behind each of these standards, and many reflect qualities I personally strive to embody as a school leader, I do have concerns regarding how Standards One and Two would be evaluated in practice. Specifically, these standards appear highly dependent on stakeholder perception, which can be difficult to measure objectively. In school leadership, feedback is often disproportionately received from dissatisfied parents or community members rather than from the broader population. Because of this, evaluations tied closely to perception-based measures may not always provide a balanced or accurate reflection of a leader’s effectiveness. I believe additional clarity around evaluation criteria, evidence sources, and measurable indicators would help ensure these standards			X				
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can be implemented consistently and fairly.							
Systems Improvement - Data isn't mentioned explicitly which seems like an oversight. Systems improvement should be grounded in data at some level. While it would be a part of evidence-based inquiry or continuous school improvement, calling it out would strengthen the standard, I think.	Added 'data-informed'						



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Community Engagement - The wording is off on this one. It reads like the purpose of engaging with parents, guardians/caretakers, and stakeholders is to partner with the greater community. That doesn't seem like it should be the purpose of the engagement. Maybe "engage with the greater community, including parents, guardians/caretakers, and other stakeholders, to ensure every child becomes a part of their community." It feels like that's the purpose - ensuring every child becomes a part of their community. The way it's written, the first and second sentence phrases are somewhat duplicative.	Reference to students becoming part of the community was removed.						
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Vision - I wonder if the vision standard shouldn't also include other educators and the system as a whole instead of just empowering learners (so it would say something like, "cultivate an innovative and student-centered vision that empowers the system"). While the vision should be student centric, the vision really may be more about empowering everyone else in the system to better serve learners thus enabling learners to learn more effectively. It feels like generally, educational leaders are serving learners a little more indirectly so they empower learners by empowering everyone else. That indirect line isn't expressed well in the vision standard.	With intent on direct focus on students, kept current language.						X
Can we remove all the jargon and set high expectations within the school setting.	Kept current language.						X



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I am not sure I understand community engagement. It seems to be supplanting the focus and role of parents.	This standard was re-written						
I don't understand the vision at all. Why would we innovate to create strategic plans that are transformative? I want leaders to know what works and why when it comes to academic outcomes.	Kept current language.						X
Number 4 we don't want evidence based inquiry. Novices don't thrive in an inquiry based program. Most of our students needs explicit instruction and adequate guided practice.	Evidence-based Inquiry in this instance refers to educational systems, not student learning.						X
I like 6							X
2 and 4 should be combined. Clear norms and consistent application of policy and rules builds a strong culture.	Kept current language.						X



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There should also be a focus on continual improvement.	Systems Improvement includes 'continuous data-informed improvement'						
Is it possible to add something about school safety?	Culture and Climate includes 'safe'						
I believe Strand 8: Vision should be moved to the Strand 2 position. After ethics it is most important. Then culture and climate.	Vision moved to Standard 1						



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In June, the Standards and Assessment Committee called for language about Principal support for special education teachers. Specifically, stronger relationships with the school leaders and relief from work load/paper work burden.	Add language in the Introduction about the all-inclusive nature of these standards. Add specific language in Instructional Leadership competencies for support for Special Education staff.	X		X	X Personnel Support		
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Utah State Board of Education Educational Leadership Standards Revision Process

Governing Policies:

53E-3-501. State board to establish miscellaneous minimum standards for public schools.

1(a): The state board shall establish rules and minimum standards for the public schools that are consistent with this public education code, including rules and minimum standards governing the following: (a)(ii) required school administrative and supervisory services

R277-330. Utah Effective Educator Standards.

4: Establishment of Standards

(1) The Board hereby establishes the Utah Effective Educator Standards as the foundation of educator development, which includes:

- (a) alignment of teacher and school administrator programs.
- (b) expectations for licensure; and
- (c) screening, hiring, induction, and mentoring of beginning educators in all license areas.

(2) The Utah Effective Educator Standards:

- (a) ensure implementation of Utah's core standards; and
- (b) serve as the basis for evaluation.

(3) The Superintendent shall:

- (a) base the model educator assessment system described in Subsection R277- 323-8(1) on the Utah Effective Educator Standards; and



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(b) provide resources, including professional learning opportunities, which assist LEAs in integrating the Utah Effective Educator Standards into educator practices.

7: Educational Leadership Standards.

(1) The Educational Leadership Standards described in this Section describe expectations for school administrators, including:

- (a) meeting the Effective Teaching standards.
- (b) having the knowledge and skills to guide and supervise the work of educators.
- (c) leading the school learning community; and (d) managing the school's learning environment to provide effective, high-quality instruction to all Utah students.

(2) In addition to meeting the Effective Teaching Standards, a school administrator shall demonstrate the traits, skills, and work functions designated in the following areas:

- (a) Visionary Leadership -- promoting the success of every student by facilitating the development, articulation, implementation, and stewardship of a vision of learning that is largely shared and supported by stakeholders.
- (b) Teaching and Learning - promoting the success of every student by advocating, nurturing, and sustaining a school focused on teaching and learning conducive to student, faculty, and staff growth.
- (c) Management for Learning -- promoting the success of every student by ensuring management of the organization, operation, and resources for a safe, efficient, and effective learning environment.
- (d) Community Collaboration:
 - (i) promoting the success of every student by collaborating with faculty, staff, parents, and community members.
 - (ii) responding to diverse community interests; and



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- (iii) mobilizing community resources;
- (e) Ethical Leadership -- promoting the success of every student by acting with, and ensuring a system of, integrity, fairness, equity, and ethical behavior; and
- (f) Systems Leadership -- promoting the success of every student by understanding, responding to, and influencing the interrelated systems of political, social, economic, legal, and policy contexts affecting education.



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Writing Committee Process and Timeline

Step	Step Description	Timeline	Notes
1. Complete Survey of Stakeholders	A survey was presented to current school and LEA leaders to inquire about the perceived value of the current leadership standards. Respondents indicated a strong need to revise the standards	July, 2025	Administered by Julie Lundell.
2. Complete the Cueing Rubric	The cueing rubric results indicated a need to revise both the leadership standards and the leadership competencies.	August, 2025	Administered by Licensing staff.
3. Board Approval of Standards Revision	A Board agenda included the survey and cueing rubric results, and a proposed revision process	September, 2025	Approved by the Board



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4. Submit a Draft of a Proposed Process for Leadership Standards Revision to Leadership for approval	Proposal includes: - Timeline - Writing Committee Members (by position) - Process	October-November, 2025	First draft of process was reviewed. Changes requested by Leadership were made and this process proposal was approved.
5. Organize the Leadership Standards Writing Committee	Submit a proposed list of writing committee member positions to USBE Leadership for approval.	October-November, 2025	The list of positions was approved by USBE Leadership with the approval of this process proposal.



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6. Using the USBE Leadership approved member list, request names from representative organizations for each writing committee member position	Submit a request for name(s) to the leadership of each representative position: Facilitator, (Quinn Kellis, USBE) Principal, UAESP (Suzanne Williams, Aspen Elementary, Jordan) Principal, UAESP (Ryan McGuire, Nebo) Charter Director (Justin Blasko, Vista School) Superintendent, USSA (Ben Dalton, Kane) Superintendent, USSA (Mika Salas, Carbon) Teacher (Joanna Andres, Park City) Local Board, USBA (Shawna Warnick, Nebo) Local Board, USBA (Jenna Woodbury, Grand) Parent, PTA (Karen Beebe) Parent, PTA (Aimee Warren) Student, USBE Student Advisory ([REDACTED]) Student, USBE Student Advisory (Claira Gunderson) University, UCEL (Marilyn Taft - Weber State) University, UCEL (Andrea Rorrer – University of Utah)	November, 2025	
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7. Extend invitations to each person recommended by the representative organizations.		November, 2025	
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8. Hold 1 st Working Mtg.	Agenda A. Welcome/Introductions B. Purpose, History, Objective: 1. Why Standards? 2. Current Standards 3. National Standards 4. Standards vs. Competencies 5. Theory vs. Practice 6. Vision C. Scope of Work (All-Inclusive Initiative) 1. Leadership Standards Writing Committee Work 2. State Board Standards and Assessment Committee 3. State Full Board Mtg 4. Ancillary Initiatives Development a. Leadership Preparation Curriculum b. Leadership Preparation Practicum c. Leadership Licensure d. Leadership Evaluations e. Leadership Mentor Program f. Training 5. Implementation of Ancillary Initiatives	December 11, 2025	Readings: Board Rule, Leadership Standards Crosswalk
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	E. Closure/Next Steps		
9. Hold 2 nd Working Mtg.	Agenda A. Welcome/Introductions B. Review of Oct. 30 meeting notes C. Forming Leadership Themes 1. One or Two Words 2. Sorting Themes 3. Aligning Themes to Vision D. Closure/Next Steps	January, 2025	Readings: Educator Evaluation Code (Note the criteria for administrators) Portrait of Meaningful Inclusion POMI CALL – Four Domains
10. Hold 3 rd Working Mtg.	Agenda A. Welcome/Introductions B. Review of previous meeting notes. C. Forming Strands 1. Review Themes 2. Draft 5-8 Strands 3. Check Alignment of Strands to Board Goals D. Closure/Next Steps	February, 2026	Readings: USBE Leadership Standards Toolkits



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11. Hold 4 th Working Mtg.	Agenda A. Welcome/Introductions B. Review of last meeting's notes C. Review: Strands D. In sub-groups, draft a standard for each strand E. Whole group reviews draft standards – aligns each to the Board goals, Q&A, Feedback F. Schedule another meeting before the May0000 Board Committee mtg? G. Closure/Next Steps	March 24, 2026	Reading: Inclusive Principal Leadership
12. Hold an Off-line Working Meeting	Agenda A. Review draft standards B. Add comments and suggestions for edits. C. Validate draft standards against the Board Goals. . Refer to current standards for a model for writing style.	March 27 – April 3, 2026	Draft Leadership Standards - Padlet.docx
12. Share a copy of the Draft Leadership Standards Revisions to USBE Leadership.	This step gives the USBE Leadership the opportunity to review the draft standards before the draft is released for public comment.	April, 2026	Draft standards reviewed by Leadership. Minor mechanical edits made.



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13. Post draft standards for public comment.	Collect public. Schedule another committee meeting to review Public Feedback comments.	April, 2026	Public Feedback form posted from April 10, 2026, to May 15, 2026. The link was sent to all stakeholder groups and USBE social media.
14. Committee reviews Public Feedback and makes changes as needed (virtually)	Committee members provided a link to the public feedback and asked to dialogue about changes during the public feedback period.	July, 2026	The committee met on June 30 and July 9 to review over 200 comments from over 100 respondents.
15. Prepare Board Memos	R277-305 (competencies) and R277-330 (standards)	April-July, 2026	Prepared by Policy team for the August, 2026 Law and Licensing Committee



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16. Report on Draft Leadership Standards Revisions to Board Law and Licensing Committee	Representatives from the Leadership Standards Writing Committee will present a summary of the draft standards to the Board Law and Licensing Committee for approval.	August, 2026	
17. Hold Working Mtg. (if needed)	Agenda: A. Welcome/Introductions B. Review guidance and recommendations from the Board Law and Licensing Committee C. Whole Group – Resolve the guidance and recommendations in a new Final Draft of Leadership Standards Revisions. D. Closure/Next Steps	August/ September, 2026	
18. Present revised Draft Leadership Standards Revisions to the Board Law and Licensing Committee or to the whole Board.	Representatives from the Leadership Standards Writing Committee will present a second summary of the draft standards and receive additional guidance and recommendations from the Board Law and Licensing Committee or the whole Board.	September, 2026	



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17. Repeat steps 13-14 until the whole Board approves Leadership Standards Revisions.	The writing committee will continue to meet between Board meetings to resolve Board guidance and recommendations (either from the Board Committee or the whole Board) and present a revised draft to the Board until the whole Board approves a final draft.	September, 2026	
18. Begin Development of Ancillary Initiatives: January 2026	With whole Board approval of the Leadership Standards, initiate next steps: - Competencies - Licensure - Leadership Preparation Courses - Leadership Evaluation - Leadership Induction/Coaching/Mentor Programs - Resources - Training, Toolkits, etc. - Training (Note: Each of these initiatives will have independent timelines/processes, but will be informed by the Board approved Leadership Standards)	August/ September, 2026	Implementation of these initiatives will commence as each is developed.

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Reporting Burden and Fiscal Impact Estimate

R277-330 – Utah Effective Educator Standards (Amendment)

1. Reporting Burden for LEAs

This rule change does not add any reports for LEAs.

2. Estimated Fiscal Impact on USBE

This rule change is not estimated to have measurable fiscal impacts on USBE.

3. Estimated Fiscal Impact on LEAs

This rule change is not estimated to have fiscal impacts on LEAs.

Author: Sam Urie

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: R277-305, School Leadership License Areas of Concentration and Programs (Amendment)

Agenda item type:

Action Item

Recommended Action:

That the Committee approve R277-305, School Leadership License Areas of Concentration and Programs, Draft 1, on first reading and forward to the Board for approval on second and final reading.

Purpose of Memo:

Staff recommendation

Background:

Staff recommends amending R277-305 to remove the oversight category and to update language on program competencies for school administrators. Under the proposed language, the Superintendent would prepare program competencies consistent with the Effective Administrator Standards in R277-330.

Staff will present R277-305, School Leadership License Areas of Concentration and Programs, Draft 1, for consideration and approval.

Authorizing, and Implemented or Interpreted Law: [Art X Sec 3](#); [53E-3-401\(4\)](#); [53E-6-201](#)

Contact:

Name: Ben Rasmussen	Quinn Kellis	Malia Hite
Title: Director of Law and Professional	School Support and	Education Licensing
	Improvement Coordinator	Coordinator
Phone: 801-538-7835	801-538-7785	801-538-7772
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Attachments:

1. R277-305 - Draft 1 - August 2026 Committee
2. R277-305 Reporting Burden and Fiscal Impact Estimate Form

R277. Education, Administration.

R277-305. School Leadership License Areas of Concentration and Programs.

R277-305-1. Authority^[,] and Purpose^[,] ~~and Oversight Category~~^[.].

(1) This rule is authorized by:

(a) Utah Constitution Article X, Section 3, which vests general control and supervision of public education in the Board;

(b) Subsection 53E-3-401(4), which allows the Board to make rules to execute the Board's duties and responsibilities under the Utah Constitution and state law; and

(c) Section 53E-6-201, which permits the Board to issue certificates for educators.

(2) The purpose of this rule is to:

(a) specify the requirements for a professional school leadership license area of concentration;

(b) specify the standards which the Board expects of a school leadership preparation program before program approval.

~~[(3) This rule is categorized as Category 4 as described in Rule R277-111.]~~

R277-305-2. Definitions.

(1) "Clinical experience" means a structured opportunity in which a program candidate is mentored by a licensed educator and evaluated by an LEA administrator or university preparation program faculty member, to develop and demonstrate competency in the skills and knowledge necessary to be an effective school leader.

(2) "School leadership license area of concentration" means the initial credential issued by the Board that authorizes a holder to be employed as a school principal, vice-principal, or assistant principal.

R277-305-3. School Leadership License Area of Concentration Requirements.

(1) The Superintendent shall issue a professional school leadership license area of concentration to an individual that applies for the license and meets all requirements in this section.

(2) The requirements for a professional school leadership license area of concentration shall include a master's degree or more advanced degree, and either;

~~(a) [(i) passage of a school leadership assessment approved by the Superintendent; and~~

~~———(ii)] a recommendation from a Board-approved school leadership preparation program pursuant to the process described in Rule R277-303; or~~

(b) a valid NASDTEC Stage 2 license in school leadership.

R277-305-4. School Leadership Preparation Programs.

(1) Before approval by the Superintendent, a preparation program for school leadership shall:

(a) demonstrate how it will prepare candidates to meet the Utah Educational Leadership Standards described in Rule R277-330;

(b) subject to Subsection (2), establish weighted entry requirements that consider prior leadership experiences of applicants and are designed to select high quality candidates to enter the licensure program;

(c) include school-based clinical experiences for a candidate to observe, practice skills, and reflect on school leadership that:

(i) are significant in number, depth, breadth, and duration;

(ii) are progressively more complex;

(iii) occur in multiple schools;

(iv) include working with both elementary and secondary teachers and students;

and

(v) occur throughout the preparation program;

(d) require the demonstration of school leadership competencies as established by the Superintendent. ~~[competency in:~~

~~——— (i) properly utilizing data, including student performance data, to evaluate educator and school performance and provide actionable information to educators to improve instruction;~~

~~——— (ii) facilitating educator use of technology to support and meaningfully supplement the learning of students;~~

~~——— (iii) collaborating with stakeholder groups to create a shared vision, mission, and goals for a school;~~

~~——— (iv) implementing the shared vision, mission, and goals for a school:~~

~~——— (A) as a principal; and~~

~~——— (B) as an assistant principal supporting the school principal;~~

~~——— (v) communicating effectively with parents, community groups, staff, and students;~~

~~——— (vi) understanding parents' rights, consent, requests, and reasonable accommodations under Utah Code, including Section 53G-6-803, and Board rule;~~

~~——— (vii) recognizing effective and ineffective instructional practice to ensure authentic learning and assessment experiences for all students;~~

~~——— (viii) implementing a multi-tiered system of supports in individual classrooms and the school as a whole;~~

~~——— (ix) counseling and coaching educators in relation to the educator's evaluation, professional learning, and student performance to improve the educator's practice;~~

~~——— (x) understanding the laws and legal ramifications surrounding school leadership decisions and practices;~~

~~——— (xi) understanding the requirements and LEA responsibilities of the IDEA;~~

~~——— (xii) ensuring a safe, secure, emotionally protective, and healthy school environment, including the prevention of bullying and youth suicide;~~

~~——— (xiii) establishing and maintaining a school culture that supports inquiry, risk-taking, innovation, and learning of both students and teachers;~~

~~——— (xiv) connecting management operations, policies, and resources to the vision and values of the school; and~~

~~_____ (xv) understanding internal controls.]~~

(2) ~~[Beginning on January 1, 2020, the]~~ The entry requirements described in Subsection (1)(b) shall require an individual entering a Board-approved education leadership licensure program to:

(a) clear a USBE fingerprint background check described in:

(i) statute; and

(ii) background check rule;

(b) hold a:

(i) Utah professional educator license; or

(ii) an equivalent out of state license;

(c) have been deemed effective or higher by:

(i) an evaluation system meeting the standards of Rule R277-323; or

(ii) the LEA's equivalent on the applicant's most recent evaluation;

(d) have a confidential recommendation from:

(i) the individual's immediate administrative supervisor; or

(ii) an LEA-level administrator with knowledge regarding the individual's potential as a school leader; and

(e) pass an interview conducted by the program to measure the potential of the individual as a school leader.

(3) A Board-approved education leadership licensure program may waive the entrance requirements described in Subsections (2)(b) through (e) based on program established guidelines for no more than 10% of an incoming cohort.

~~[(4) For a program applicant accepted on or after January 1, 2020, an approved school leadership licensure program shall require multiple opportunities for a program applicant to successfully demonstrate application of knowledge and skills gained through the program in one or more clinical experiences in each of the following competencies:~~

- ~~—— (a) analyzing school assessment data from common formative assessments, summative assessments, standardized assessments, and interim or benchmark assessments with school staff and with individual teachers;~~
- ~~—— (b) administering all aspects of a teacher evaluation system that meets the requirements of:~~
- ~~—— (i) Rule R277-323; or~~
- ~~—— (ii) the LEA's equivalent;~~
- ~~—— (c) administering all aspects of an evaluation system for an education support professional;~~
- ~~—— (d) planning, organizing, conducting, and evaluating the effectiveness of a professional learning activity for school staff;~~
- ~~—— (e) supporting or overseeing a school-based learning team;~~
- ~~—— (f) working with a School Community Council, including the annual development and evaluation of a school's Teacher and Student Success Act plan and School LAND Trust plan;~~
- ~~—— (g) performing formal and informal classroom observations for improving instruction;~~
- ~~—— (h) acting as the LEA representative in IEP and 504 accommodation plan meetings;~~
- ~~—— (i) appropriately handling cases of student discipline referred to the school office;~~
- ~~—— (j) supervising school activities and monitoring the process for collecting and handling fees and gate receipts; and~~
- ~~—— (k) implementing a school's screening and hiring process, including interviews and the notification of successful and unsuccessful applicants.]~~

R277-305-5. Superintendent Responsibilities.

(1) The Superintendent shall ensure that the model mentoring program required under Rule R277-308 includes induction for new school leaders.

(2) The Superintendent shall include a list of resources for potential school leadership candidates to help them prepare for school leadership on the Utah Leading through Effective and Dynamic Education website.

(3) The Superintendent shall implement a network for principals.

(4) The Superintendent shall create a depository of school principal learning resources that can be utilized by LEAs in the Utah Leading through Effective and Dynamic Education website.

KEY: school leadership license, program

Date of Last Change: December 8, 2025

Notice of Continuation: March 11, 2024

Authorizing, and Implemented or Interpreted Law: Art X Sec 3; 53E-3-401(4); 53E-6-201

Utah State Board of Education

Reporting Burden and Fiscal Impact Estimate

R277-305 – School Leadership License Areas of Concentration and Programs (Amendment)

1. Reporting Burden for LEAs

This rule change does not add any reports for LEAs.

2. Estimated Fiscal Impact on USBE

This rule change is not estimated to have measurable fiscal impacts on USBE.

3. Estimated Fiscal Impact on LEAs

This rule change is not estimated to have fiscal impacts on LEAs.

Author: Sam Urie

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: R277-106, Utah Professional Practices Advisory Commission Appointment (Continuation)

Agenda item type:

Action Item

Recommended Action:

That the Committee continue R277-106, Utah Professional Practices Advisory Commission Appointment, on first reading and forward to the Board for continuation on second and final reading.

Purpose of Memo:

5-year review

Background:

R277-106 is soon approaching its five-year review. Staff recommend continuation of the rule. The rule may be revisited after the internal audit and OLAG audits of UPPAC are complete.

Staff will present R277-106, Utah Professional Practices Advisory Commission Appointment, for continuation.

Authorizing, and Implemented or Interpreted Law: [Art X Sec 3](#); [53E-6-503](#)(1)(a); [53E-3-401](#)(4)

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Attachments:

1. R277-106 - Continuation - August 2026 Committee
2. R277-106 Reporting Burden and Fiscal Impact Estimate Form

R277. Education, Administration.

R277-106. Utah Professional Practices Advisory Commission Appointment Process.

R277-106-1. Authority and Purpose.

(1) This rule is authorized by:

(a) Utah Constitution Article X, Section 3, which vests general control and supervision over public education in the Board;

(b) Subsection 53E-3-401(4), which allows the Board to make rules to execute the Board's duties and responsibilities under the Utah Constitution and state law; and

(c) Subsection 53E-6-503(1)(a), which directs the Board to adopt rules establishing procedures for nominating and appointing UPPAC members.

(2) The purpose of this rule is to establish nomination and appointment procedures for UPPAC members.

R277-106-2. Definitions.

(1) "Nomination application" means a form prepared by the Superintendent as described in Subsection R277-106-3(2).

(2) "Utah Professional Practices Advisory Commission" or "UPPAC" means an advisory commission established under Section 53E-6-501 to assist and advise the Board in matters relating to the professional practices of educators.

R277-106-3. UPPAC Nomination and Application Process.

(1) The UPPAC Executive Secretary shall notify school districts, charter schools, and education organizations in writing of openings on UPPAC for the upcoming term by May 1.

(2) The Superintendent shall develop a nomination application through which an applicant expresses interest in serving on UPPAC, which outlines the expectations and time commitment required of a UPPAC member.

(3) A nomination application must be signed by:

(a) the applicant;

(b) in the case of a licensed educator whose primary assignment is teaching or school level, the applicant's principal and superintendent or charter school director;

(c) in the case of a licensed educator whose assignment is as a principal or at the district level, the applicant's superintendent;

(d) in the case of a licensed educator whose assignment is as a district superintendent or charter school director, the applicant's local board or charter school governing board chair; and

(e) in the case of an education organization representative, an officer of the education organization as provided in Subsection 53E-6-502(1).

(4) An educator shall submit a statement of interest and resume or vita along with the nomination application.

(5) An applicant who is interested in serving on UPPAC shall submit a nomination application to the Superintendent by May 31.

R277-106-4. UPPAC Selection Process.

(1) The UPPAC Executive Secretary shall review all complete and properly filed applications and may make recommendations to the Superintendent prior to June 1.

(2) Prior to making the recommendations described in Subsection (1), the Executive Secretary may seek additional information to provide to the Superintendent about the experience and qualification of UPPAC applicants.

(3) Prior to making the recommendations described in Subsection (1), the Executive Secretary shall consider demographic diversity, including:

(i) rural and urban representation;

(ii) geographical balance;

(iii) elementary and secondary representation;

(iv) gender diversity;

(v) ethnic diversity;

(vi) specialized knowledge of an applicant; and

(vii) representation of LEA superintendents, principals, or charter school administrators.

(4) If a current UPPAC member desires to serve a second term, the member shall indicate the desire to serve an additional term in writing to the Superintendent prior to May 1 of the year in which the member's term expires.

(5) The application of a UPPAC member seeking reappointment shall be considered for recommendation at the same time that new appointments are considered.

(6) The Executive Secretary may retain nomination applications for consideration in the event of mid-term vacancies or for vacancies in subsequent years.

R277-106-5. Education Organization Member Appointments.

(1) The state organization or a local chapter of the education organization with the largest membership of parents of students and teachers in the state may nominate community members to serve on UPPAC.

(2) Community members may submit their names to the education organization described in Subsection 53E-6-502(1) for nomination by the organization.

(3) The two education organization members may not serve concurrent terms.

R277-106-6. Filling of Vacancies.

(1) The UPPAC Executive Secretary shall recommend names to the Superintendent to fill UPPAC vacancies that occur midyear.

(2) The UPPAC Executive Secretary may recommend names of previous applicants for UPPAC vacancies or names from school districts or charter schools or other groups or areas of the state that are under represented for midyear vacancies.

KEY: professional competency, professional practices

Date of Last Change: November 7, 2018

Notice of Continuation: September 9, 2021

87 **Authorizing, and Implemented or Interpreted Law: Art X Sec 3; 53E-6-503(1)(a);**
88 **53E-3-401(4)**
89
90

Utah State Board of Education

Reporting Burden and Fiscal Impact Estimate

R277-106 – Utah Professional Practices Advisory Commission Appointment Process (Continuation)

1. Reporting Burden for LEAs

This continuation does not add any reports for LEAs.

2. Estimated Fiscal Impact on USBE

This continuation is not estimated to have fiscal impacts on USBE.

3. Estimated Fiscal Impact on LEAs

This continuation is not estimated to have fiscal impacts on LEAs.

Author: Sam Urie

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: R277-116, Audit Procedure (Continuation)

Agenda item type:

Action Item

Recommended Action:

That the Committee continue R277-116, Audit Procedure, on first reading and forward to the Board for continuation on second and final reading.

Purpose of Memo:

5-year review

Background:

R277-116 is soon approaching its five-year review. Staff recommends continuation of the rule.

Also, there is one technical, non-substantive change made to the document.

Staff will present R277-116, Audit Procedure, Continuation, for consideration and approval.

Authorizing, and Implemented or Interpreted Law: [Art X Sec 3](#); [53E-3-401](#); [53E-3-501](#)(1)(e); [53E-3-602](#); [53E-3-603](#); [53F-2-204](#)

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Attachments:

1. R277-116 - Draft 1 - August 2026 Committee
2. R277-116 Reporting Burden and Fiscal Impact Estimate Form

R277. Education, Administration.

R277-116. Audit Procedure.

R277-116-1. Authority and Purpose.

(1) This rule is authorized by:

(a) Utah Constitution Article X, Section 3, which vests general control and supervision of public education in the Board;

(b) Subsection 63I-5-201(4) which requires the Board to direct the establishment of an internal audit department for programs administered by the Board;

(c) Subsection 53E-3-401(4), which allows the Board to make rules to execute the Boards duties and responsibilities under the Utah Constitution and state law;

(d) Subsection 53E-3-501(1)(e), which directs the Board to develop rules and minimum standards regarding school productivity and cost effectiveness measures, school budget formats, and financial, statistical, and student accounting requirements for the local school districts;

(e) Subsection 53F-2-204(2), which directs the Board to assess the progress and effectiveness of any programs funded under the State System of Public Education; and

(f) Subsection 53E-3-401(9), which gives the Board authority to audit the use of state funds by an education entity that receives state funds as a distribution from the Board.

(2) The purpose of this rule is to:

(a) outline the role of the Chief Audit Executive and audit client in the audit process; and

(b) outline the Board's procedures for audits of audit clients.

R277-116-2. Definitions.

(1) "Audit client" means an agency or an education entity.

(2) "Audit committee" means the same as that term is defined in Subsection 63I-5-102(5).

29 (3) "Audit plan" means a prioritized list of audits with associated resource
30 requirements to be performed by the audit program that is reviewed, approved, and
31 adopted at least annually by the Board.

32 (4) "Audit program" means the department that provides internal audit services for
33 the Board that is directed by the Chief Audit Executive.

34 (5) "Chief Audit Executive" means the person who directs the audit program of the
35 Board or the Chief Audit Executive's designee.

36 ____(6) "Draft audit report" means an unfinalized audit report compiled by the Chief
37 Audit Executive that is classified as protected under Subsection 63G-2-305(10).

38 (7) "Education entity" means the same as that term is defined in Section 53E-3-
39 401.

40 (8) "Final audit report" means a draft audit report, accepted by the audit committee
41 and the Board, that is generally classified as public under Subsection 63G-2-301(3)(q).

42 (9) "Improper payment" means:

43 (a) a payment that should not have been made or that was made in an incorrect
44 amount under statutory, contractual, administrative, or other legally applicable
45 requirements;

46 (b) an overpayment or underpayment to an eligible recipient;

47 (c) a payment to an ineligible recipient;

48 (d) a payment for an ineligible good or service;

49 (e) a payment for a good or service not received; or

50 (f) a payment that cannot be appropriately classified through an audit or review as
51 a result of insufficient documentation.

52 (10) "Local administrator" means the superintendent or director of an audit client.

53 (11)(a) "Questioned cost" means a cost that is questioned by the auditor because
54 of an audit finding:

55 (i) which resulted from a violation or possible violation of a statute, regulation, or
56 the terms and conditions of an award;

(ii) where the costs, at the time of the audit, are not supported by adequate documentation; or

(iii) where the costs incurred appear unreasonable and do not reflect the actions a prudent person would take in the circumstances.

(b) A "questioned cost" is not an improper payment unless confirmed to be improper by the Board.

R277-116-3. Chief Audit Executive Authority and Responsibilities.

(1) The Chief Audit Executive shall direct the audit program in accordance with:

(a) Title 63I, Chapter 5, Utah Internal Audit Act;

(b) applicable Board bylaws and Board policies; and

(c) the USBE Internal Audit Policy and Procedures Manual.

(2) The Chief Audit Executive shall make a copy of the USBE Internal Audit Department Policy and Procedure Manual available to the general public upon request.

(3) The Chief Audit Executive may contract with an LEA or other education entity to provide internal audit services if the contract is approved by the audit committee in accordance with Board contract policies.

R277-116-4. Audit Client Responsibilities.

(1) The audit client shall fully cooperate and provide the Chief Audit Executive items, information, and access in accordance with Title 63I, Chapter 5, Utah Internal Audit Act.

(2) If an audit client does not fully cooperate, the Chief Audit Executive shall require the audit client to appear before the Audit Committee to discuss the non-compliance.

(3) If an audit client continues to be non-compliant after appearing before the Audit Committee, the Superintendent may place the audit client on a corrective action plan in accordance with Rule R277-114.

R277-116-5. Audit Process.

(1) At the initiation of an audit, the Chief Audit Executive shall:

(a) send an engagement letter to the local administrator, and if applicable, the audit committee chair of the audit client; and

(b) hold an entrance conference with the individuals specified in Subsection (1)(a).

(2) The Chief Audit Executive shall conduct the audit in conformance with International Standards for the Professional Practice of Internal Auditing, inclusive of:

(a) inquiring with the audit client to gain an understanding of the area being audited; and

(b) requesting and obtaining evidence throughout the audit to perform necessary analyses to meet the scope and objectives of the audit.

(3) After conducting an audit, the Chief Audit Executive shall submit the draft audit report directly to the audit committee.

(4) After complying with Subsection (3), the Chief Audit Executive shall provide the individuals identified in Subsection (1)(a) with notice, which shall include:

(a) the draft audit report;

(b) a cover letter outlining the classification of the draft audit report in accordance with Title 63G, Chapter 2, Government Records Access and Management Act, including any limitations regarding the sharing or dissemination of the audit report;

(c) an opportunity to request an exit conference within seven days of the date the draft report was provided, with the exit conference being held no later than 14 days from the date the draft report was provided; and

(d) an explanation outlining the process to submit a response to the audit, as applicable in accordance with Subsection (7).

(5) If appropriate, and at the discretion of the Chief Audit Executive, the Chief Audit Executive may edit the draft audit report based on feedback and information received pursuant to Subsections (3) and (4).

(6) After finalizing the draft audit report, the Chief Audit Executive shall:

(a) if necessary, submit the draft audit report directly to:

115 (i) the audit committee;
116 (ii) the Superintendent; and
117 (iii) additional individuals and entities, as appropriate; and
118 (b) provide notice to the individuals identified in Subsection (1)(a), which shall
119 include the same information required for notice under Subsection (4).

120 (7) Within 14 days of the Chief Audit Executive's notice to the individuals identified
121 in Subsection (1)(a), the audit client may:

122 (a) provide a written response to the draft audit report to the Chief Audit Executive;
123 or

124 (b) file a written request for an extension of time with the Chief Audit Executive
125 setting forth:

126 (i) the justification for the extension request; and
127 (ii) the extension time necessary to provide the response.

128 (8) If a request for extension is filed in accordance with Subsection (7)(b), the
129 Chief Audit Executive shall respond after consulting with the Audit Committee chair.

130 (9) Upon receiving a written response in accordance with Subsection (7)(a) or if
131 no response to request for extension is received, the Chief Audit Executive shall:

132 (a) incorporate the written response, if any, into the draft audit report;
133 (b) prepare Chief Audit Executive concluding remarks, if appropriate; and
134 (c) submit the draft audit report to the audit committee and Superintendent.

135 (10) Upon receiving the draft audit report, consistent with Board bylaws, the audit
136 committee shall provide direction to staff or propose recommendations to the Board
137 regarding release of the audit or corrective action, including recommendations to confirm
138 questioned costs as improper payments.

139
140 **R277-116-6. Due Process.**

141 (1) An audit client who wishes to appeal Board action in response to an audit, shall
142 follow the process outlined in Rule 277-102.

(2) An audit client who wishes to appeal a corrective action plan established by the Superintendent based on Board action in response to an audit, shall follow the process outlined in Section R277-114-5.

KEY: educational administration

Date of Last Change: November 8, 2021

Notice of Continuation: September 9, 2021

Authorizing, and Implemented or Interpreted Law: Art X Sec 3; 53E-3-401; 53E-3-501(1)(e); 53E-3-602; 53E-3-603; 53F-2-204

Utah State Board of Education

Reporting Burden and Fiscal Impact Estimate

R277-116 – Audit Procedure (Continuation)

1. Reporting Burden for LEAs

This continuation does not add any reports for LEAs.

2. Estimated Fiscal Impact on USBE

This continuation is not estimated to have fiscal impacts on USBE.

3. Estimated Fiscal Impact on LEAs

This continuation is not estimated to have fiscal impacts on LEAs.

Author: Sam Urie

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: R277-323, Public Educator Evaluation (Amendment)

Agenda item type:

Action Item

Recommended Action:

That the Committee approve R277-323, Public Educator Evaluation, Draft 1, on first reading and forward to the Board for approval on second and final reading.

Purpose of Memo:

Staff recommendation

Background:

Staff recommends amending R277-323 to reflect updates in 2026 SB 241.

Staff will present R277-323, Public Educator Evaluation, Draft 1, for consideration and approval.

Authorizing, and Implemented or Interpreted Law: [Article X, Section 3](#); [53E-3-401](#)(4); [53G, Chapter 11, Part 5](#); [53E-3-501](#)(1)(a)(i) and (ii)

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Attachments:

1. R277-323 - Draft 1 - August 2026 Committee
2. R277-323 Reporting Burden and Fiscal Impact Estimate Form

R277. Education, Administration.

R277-323. Public Educator Evaluation.

R277-323-1. Authority^[,] and Purpose^[,] ~~and Oversight Category~~.

(1) This rule is authorized by:

(a) Utah Constitution Article X, Section 3, which vests general control and supervision over public education in the Board;

(b) Subsection 53E-3-401(4), which allows the Board to make rules to execute the Board's duties and responsibilities under the Utah Constitution and state law;

(c) Title 53G, Chapter 11, Part 5, School District and Utah Schools for the Deaf and the Blind Employee Requirements, which requires the Board to make rules to establish a framework for the evaluation of educators and set policies and procedures related to educator evaluations; and

(d) Subsections 53E-3-501(1)(a)(i) and (ii), which require the Board to establish rules and minimum standards for the qualification and certification of educators and for required school administrative and supervisory services.

(2) The purpose of this rule is to:

(a) provide a framework for educator evaluation systems;

(b) describe the requirements for district policies related to educator evaluation; and

(c) establish requirements for determining annual summative educator effectiveness ratings.

~~[(3) This rule is categorized as Category 3 as described in Rule R277-111.]~~

R277-323-2. Definitions.

(1) "Academic growth" means demonstration of student learning through formative assessment measures identified by the LEA, school, or educator within the school year.

(2) "Administrator" has the same meaning as that term is defined in Section 53G-11-501.

(3) "Certified evaluator" means an educator with training in evaluating educator performance and demonstrated competency in using an educator evaluation tool to rate educator performance according to established standards.

(4) "Chronically absent" means that a student:

(a) was enrolled in an LEA for at least 60 calendar days; and

(b) missed 10% or more of the student's instructional days, whether the absence was excused or not.

(5) "Continued professional growth" means incremental measures of improvement relevant to the Utah Effective Educator Standards.

(6) "Educator" has the same meaning as that term is defined in Section 53G-11-501.

(7) "Educator evaluation system" means a school district's process, policies, and procedures for evaluating an educator's performance in the educator's assignments.

(8) "Formative assessment measures" means planned, ongoing processes used for educators to engage in reflection and growth of professional skills and includes opportunities to receive feedback on strengths or weaknesses of specific knowledge, skills, and abilities.

(9) "Evaluator" means an individual who is responsible for an educator's summative evaluation in accordance with this Rule R277-323.

(10) "Local board" means a school district's elected board of education or for the Utah Schools of the Deaf and the Blind, the Board.

(11) "Observation" means a formal or informal visit made by an administrator to an educator's classroom for the purpose of gathering formative information, providing feedback for growth, and informing decisions related to the educator's summative evaluation.

(12) "Performance" means the combination of an educator's professionalism consistent with:

(a) the Utah Effective Educator Standards;

(b) student academic growth; and

(c) continued professional growth as an educator.

(13) "Summative evaluation" means an evaluation that is used to make decisions or ratings of an educator's performance and that may inform decisions on salary, continued employment, personnel assignments, transfers, or dismissals, consistent with a school district's policies.

(14) "Summative evaluation rating" means an annual rating of an educator's performance that assigns one of three levels, that may be defined as:

(a) One -- The educator did not meet performance expectations;

(b) Two -- The educator partially met performance expectations by demonstrating evidence of continued professional growth or demonstrating evidence of student academic growth;

(c) Three -- The educator met performance expectations by demonstrating evidence of continued professional growth and demonstrating evidence of student academic growth.

(15) "Unsatisfactory performance" means a level one summative evaluation rating.

(16) "Utah Effective Educator Standards" means the standards established in Rule R277-330, as applicable to the assignment for which an evaluator evaluates an educator.

R277-323-3. School District Educator Evaluation Systems.

(1) A local board shall adopt a district educator evaluation system ~~[in consultation with a joint committee established by the local board as required by]~~ consistent with the requirements of Sections 53G-11-506 and 53G-11-507.

~~[(2) A local board shall review and approve its educator evaluation system in an open meeting.~~

~~—— (3) A district educator evaluation system shall:~~

~~—— (a) evaluate educators based on the Utah Effective Educator Standards;~~

~~—— (b) include a description of school district processes for gathering, using, and protecting individual educator evaluation data;~~
~~—— (c) include valid and reliable methods and tools to implement an evaluation;~~
~~—— (d) include a systematic process for evaluating all educators holding an educator license during an evaluation cycle of up to four years;~~
~~—— (e) include a summative evaluation rating consistent with this Rule R277-323;~~
and
~~—— (f) take into account multiple inputs as required by Section 53G-11-507, including:~~
~~—— (i) self-evaluation of performance in relation to the Utah Effective Educator Standards;~~
~~—— (ii) student and parent input;~~
~~—— (iii) for administrators, feedback from teachers, including input on the effectiveness of evaluating employee performance in a school or school district for which the administrator has responsibility;~~
~~—— (iv) results of multiple observations done with tools aligned to the Utah Effective Educator Standards;~~
~~—— (v) evidence of student academic growth, as specified by the school district; and~~
~~—— (vi) other indicators of professional improvement as specified by the school district.]~~

(4) A school district may use an evaluation cycle extending up to four years, which includes:

- (a) a summative evaluation at least once every four years; and
- (b) annual formative assessment measures, including:
 - (i) at least one observation conducted by an administrator;
 - (ii) additional observations, with feedback, which may be provided by a peer, mentor, instructional coach, administrator or other professional designated by the district; and

(iii) a planned ongoing process for the educator to engage in reflection and growth related to the Utah Effective Teaching Standards.

(5) A school district may not use year-end state testing data in determining an educator's summative evaluation rating.

(6) A school district may not use data from a student who is chronically absent in determining an educator's summative evaluation rating.

(7) A school district shall align its employee compensation system, with the district's educator evaluation system in accordance with Subsection 53G-11-518(1).

(8) To form the school district's educator evaluation system, a local school board may adopt:

- (a) the Utah Model Educator Evaluation System approved by the Board;
- (b) an adapted system; or
- (c) a system developed by the school district consistent with this rule and Rule R277-330.

R277-323-4. Systems Reliability.

A school district shall establish an evaluator reliability process to ensure the reliability of its educator evaluation system that:

- (1) identifies criteria for use in assigning evaluation ratings
- (2) provides professional development opportunities for all evaluators that:
 - (a) assures evaluators understand the Utah Effective Educator Standards;
 - (b) improve evaluator proficiency in recognizing the criteria described in Subsection (1)(a); and
- (c) give the evaluator an opportunity to demonstrate their abilities to rate an educator in accordance with the Utah Effective Educator Standards;
- (3) designate qualified raters as certified;
- (4) assure that each educator is rated by a certified evaluator; and
- (5) include a process for maintaining a certified evaluator's skills.

R277-323-5. Notice and Review.

(1) At least 15 days before an educator's first evaluation, a school district shall provide an educator with:

- (a) notification of the evaluation process;
- (b) access to relevant evaluation instruments; and
- (c) notice of potential consequences, including discipline and termination, if an educator fails to meet performance expectations.

(2) A school district's educator evaluation system shall:

- (a) provide for clear and timely discussion of an evaluation with the educator;
- (b) provide a written copy of the evaluation to the educator;
- (c) allow an educator to respond to any part of the evaluation; and
- (d) attach the educator's response to the evaluation if the response is provided in writing.

(3) An educator who is dissatisfied with an evaluation may submit a written request for review within 15 days after receiving notice of the written evaluation.

(4) A school district shall conduct a review as described in this section and Section 53G-11-508.

(5) A school district conducting a review under Subsection (4) shall:

- (a) use a certified evaluator;
 - (i) with experience in evaluating educators; and
 - (ii) who is not employed by the school district; and
- (b) conduct the review in accordance with Utah Effective Educator Standards.

(6) A certified evaluator described in Subsection (5)(a) shall:

- (a) review the school district's educator evaluation policies and procedures;
- (b) review the evaluation process conducted for the educator;
- (c) review the evaluation data from the professional performance, student academic growth, and stakeholder input components;

(d) review an educator's written response, if submitted in accordance with Subsection 53G-11-508(1)(b); and

(e) report findings, in writing, to the school district's superintendent for action.

(7) The school district superintendent shall determine if the initial educator evaluation was issued in accordance with:

(a) the school district's educator evaluation policies;

(b) the requirements of the Utah Effective Educator Standards;

(c) Title 53G, Chapter 11, Employees; and

(d) this Rule R277-323.

R277-323-6. Support for Educators.

(1) If an educator receives an unsatisfactory performance rating, a school district shall provide the educator with support for academic impact improvement consistent with Title 53G, Chapter 11, Part 5, School District and Utah School for the Deaf and the Blind Employee Requirements, including:

(a) assessing the professional learning needs of the educator; and

(b) providing mentors, coaches, or instructional specialists to assist the educator in establishing timelines and benchmarks for improving academic impact.

(2) A school district may provide assistance to any educator in need of support with professional growth as an educator or student academic growth.

R277-323-7. Superintendent Responsibilities.

(1) The Superintendent shall develop a model educator evaluation system that includes performance expectations consistent with this rule.

(2) The Superintendent shall evaluate and recommend tools and measures for use by school districts in developing and implementing educator evaluation systems.

(3) The Superintendent shall annually monitor 10% of school district educator evaluation systems.

R277-323-8. School District Revisions.

A school district shall amend the district educator evaluation system to align with any future revisions to the Utah Effective Educator Standards and implement any changes within two years from the effective date of revisions to Rule R277-330.

R277-323-9. Applicability.

(1) This rule shall become effective beginning in the 2024-2025 school year, except for the following subsections, which a district shall implement no later than June 30, 2029:

- (a) Subsection R277-323-3(3)(e);
- (b) Subsection R277-323-3(4); and
- (c) Subsection R277-323-3(6).

(2) A requirement for a school district under this Rule R277-323 is also applicable to the Utah Schools for the Deaf and the Blind.

KEY: evaluation

Date of Last Change: December 10, 2024

Authorizing, and Implemented or Interpreted Law: Article X, Section 3; 53E-3-401(4); 53G, Chapter 11, Part 5; 53E-3-501(1)(a)(i) and (ii)

Utah State Board of Education

Reporting Burden and Fiscal Impact Estimate

R277-323 – Public Educator Evaluation (Amendment)

1. Reporting Burden for LEAs

This rule change does not add any reports for LEAs.

2. Estimated Fiscal Impact on USBE

This rule change is not estimated to have measurable fiscal impacts on USBE.

3. Estimated Fiscal Impact on LEAs

This rule change is not estimated to have fiscal impacts on LEAs.

Author: Sam Urie

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: R277-324, Paraprofessional/Paraeducator Programs, Assignments, and Qualifications (Continuation)

Agenda item type:

Action Item

Recommended Action:

That the Committee continue R277-324, Paraprofessional/Paraeducator Programs, Assignments, and Qualifications, and forward to the Board for approval.

Purpose of Memo:**Background:**

R277-324 is soon approaching its five-year review. Staff recommends continuation of the rule..

Authorizing, and Implemented or Interpreted Law: [Art X Sec 3](#); [53E-3-401](#)(4); [53E-3-501](#)(1)(a)(i)

Contact:

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Attachments:

1. R277-324 - Continuation - August 2026 Committee
2. R277-324 Reporting Burden and Fiscal Impact Estimate Form

R277. Education, Administration.

R277-324. Paraprofessional/Paraeducator Programs, Assignments, and Qualifications.

R277-324-1. Authority and Purpose.

(1) This rule is authorized by:

(a) Utah Constitution, Article X, Section 3 which vests general control and supervision of public education in the Board;

(b) Subsection 53E-3-401(4), which gives the Board authority to adopt rules in accordance with its responsibilities; and

(c) Subsection 53E-3-501(1)(a)(i), which requires the Board to establish rules and minimum standards for the public schools regarding the qualification and certification of educators and ancillary personnel who provide direct student services.

(2) The purpose of this rule is to designate appropriate assignments of paraprofessionals and qualifications for paraprofessionals;

R277-324-2. Definitions.

(1)(a) "Paraprofessional" or "paraeducator" means an individual who performs a non-instructional or instructional supporting role in various educational settings and may provide support in a non-instructional role, such as providing parental or guardian involvement activities or by providing support in a specific setting.

(b) A "paraprofessional" or "paraeducator" provides instructional support under the direct supervision of a licensed educator or other licensed or certified professional.

(2) "Paraprofessional training" means professional development consistent with or using information provided in this rule and the Utah Standards for Instructional Paraeducators.

R277-324-3. Incorporation by Reference of Utah Standards for Instructional Paraeducators.

(1) This rule incorporates by reference the Utah Standards for Instructional Paraeducators, dated February 5, 2026.

(2) A copy of the Utah Standards for Instructional Paraeducators is available at:

(a) <https://schools.utah.gov/administrativerules/documentsincorporated>; and

(b) the offices of the Utah State Board of Education, 250 E. 500 So., Salt Lake City, Utah, 84111.

R277-324-4. Appropriate Assignments or Duties for Paraprofessionals.

(1) A paraprofessional may:

(a) upon completion of explicit training from appropriately licensed teachers or related service providers, provide individual or small group instructional assistance or tutoring to students as designed by an appropriately licensed teacher or related service provider during times when students would not otherwise receive instruction from an appropriately licensed teacher or related service provider;

(b) assist with classroom organization and management, such as organizing instructional or other materials;

(c) provide assistance with supplementary aids and services, program modifications, and support, such as assistive technology devices and services;

(d) conduct parental involvement activities;

(e) provide support in library or media centers; or

(f) provide supervision for students in non-instructional settings.

(2) A paraprofessional may not:

(a) be responsible for selecting or administering formal diagnostic or psychological instruments or for interpreting the results of those instruments if the paraprofessional's training, licensure, or other forms of certification do not align with the administration and interpretation requirements stated in an instrument's technical manual;

(b) be responsible for selecting programming or prescribing educational activities or materials for the students without the supervision and guidance of an appropriately licensed teacher or related service provider;

(c) be solely responsible for designing lesson plans;

(d) be assigned to implement elements of an IEP for a student with disabilities without direct training, supervision, and involvement from an appropriately licensed teacher or related service provider;

(e) employed to fulfill the responsibilities that may only be provided by an appropriately licensed and otherwise qualified teacher or related service provider; or

(f) perform nursing procedures or administer medications without appropriate supervision and training from an appropriately licensed health care professional.

(3) A licensed teacher shall:

(a) prepare a lesson and plan the instruction support activities to be carried out by a paraprofessional;

(b) evaluate the achievement of the students with whom a paraprofessional works; and

(c) provide the supervision and support to the paraprofessional that the teacher deems appropriate for the paraprofessional to work effectively in the paraprofessional's role and responsibilities.

(4) If a paraeducator is working in a special education program, the LEA shall appropriately train the special education teacher to supervise and direct the work of the paraeducator in the paraeducator's assigned roles and responsibilities.

(5) An LEA that employs a paraprofessional shall establish and maintain documentation of training provided by the LEA as required in:

(a) Subsection (1)(a); and

(b) for a paraprofessional who works with a student with a disability, Utah State Board of Education Special Education Rules Section IX.E, incorporated by reference into Rule R277-750.

R277-324-5. Requirements for Paraprofessionals in Title I Schoolwide and Targeted Assistance Programs.

(1) A paraprofessional hired to work in Title I schoolwide or targeted assistance programs supported by Title I funds shall be a high school graduate or equivalent and shall meet at least one of the following requirements:

(a) complete at least two years, or a minimum of 48 semester hours, at an accredited higher education institution;

(b) obtain an associate, or higher, degree from an accredited higher education institution; or

(c) satisfy a rigorous Board approved assessment that demonstrates:

(i) knowledge of, and the ability to assist in instructing, reading, writing, and mathematics; or

(ii) knowledge of, and the ability to assist in instructing, reading readiness, writing readiness, and mathematics readiness, as appropriate.

(2) A paraprofessional shall satisfactorily complete a criminal background check consistent with Section 53G-11-402 and Rule R277-316.

R277-324-6. Exceptions in Title I Schoolwide and Targeted Assistance Programs.

The requirements in Section R277-324-4 do not apply to a paraprofessional with a high school diploma or equivalent solely providing:

(1) support through translator services;

(2) support as a parent engagement liaison; or

(3) personal care for students with disabilities.

R277-324-7. Use of Funds.

An LEA may use Title I funds in addition to other funds available and identified by the LEA to support ongoing training and professional development for paraprofessionals.

114 **KEY: paraprofessional qualifications**
115 **Date of Last Change: April 7, 2026**
116 **Notice of Continuation: September 9, 2021**
117 **Authorizing, and Implemented or Interpreted Law: Art X Sec 3; 53E-3-401(4); 53E-**
118 **3-501(1)(a)(i)**
119
120

Utah State Board of Education

Reporting Burden and Fiscal Impact Estimate

R277-324 – Paraprofessional/Paraeducator Programs, Assignments, and Qualifications (Continuation)

1. Reporting Burden for LEAs

This continuation does not add any reports for LEAs.

2. Estimated Fiscal Impact on USBE

This continuation is not estimated to have measurable fiscal impacts on USBE.

3. Estimated Fiscal Impact on LEAs

This continuation is not estimated to have fiscal impacts on LEAs.

Author: Sam Urie

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: Approval of ParaPathways

Agenda item type:

Action Item

Recommended Action:

That the Committee approve the ParaPathways assessment from ETS for qualification of paraprofessionals and adopt ETS's recommended passing scores for reading and writing and mathematics and forward to the Board for approval.

Purpose of Memo:

Staff recommendation

Background:

One of the board-approved paraprofessional assessments (R277-324(5)(1)(c)- ParaPro) is being updated at the end of September 2026, the company Educational Testing Service (ETS) which will separate the course assessments into Reading and Math. The new assessment is called ParaPathways.

Staff will present ParaPathways, for consideration and approval.

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Attachments:

1. ParaPathways_Crosswalk
2. Technical Report ParaPathways (5757) Multistate Standard-Setting (Mar 2025) (1)

ParaPathways: Redefining Paraeducator Potential

ParaPathways is an innovative assessment designed to validate and enhance the essential skills paraeducators need to support teachers and students effectively.



ParaPathways represents the next generation of paraeducator assessment, building upon the foundation of the original ParaPro assessment (1775) while adapting to meet today's classroom demands.

Key Enhancements:

- Streamlined evaluation of Reading, Writing, and Mathematics skills with direct classroom applications.
- Enhanced focus on practical classroom applications, digital literacy in teaching and writing, and ethical research practices including proper citation methods.
- Refined content and eliminated redundant topics like synonyms/antonyms and overlapping mathematical concepts.

SUMMARY OF CHANGES

- The new assessment is split into two separately timed subtests: Reading and Writing (5758) and Mathematics (5759)
- The total number of test questions has decreased from 90 multiple-choice questions to 87 multiple-choice questions (51 for Reading and Writing, 36 for Mathematics).
- The total allotted testing time has decreased from 150 minutes to 145 minutes (85 minutes for Reading and Writing, 60 minutes for Mathematics).
- The use of a four-function calculator is now permitted.

Test Comparison At A Glance

1755 ParaPro Testing Time: 150 minutes		5758 ParaPathways: Reading & Writing Subtest Testing Time: 85 Minutes		5759 ParaPathways: Mathematics Subtest Testing Time: 60 Minutes	
Category	Aproximate Number of Questions	Category	Aproximate Number of Questions	Category	Aproximate Number of Questions
I. Reading	30	I. Reading	30	I. Numbers and Operations	18
II. Mathematics	30	II. Writing	21	II. Geometry, Measurement, & Data Analysis	18
III. Writing	30			Total	36
Total	90	Total	51	Total	36

Content Topics

Reading & Writing Content:

- Eliminates outdated pre-reading strategies (e.g., skimming) in favor of Science of Reading principles.
- Emphasis on reading fluency and analyzing textual evidence.

Mathematics Content:

- Expanded focus on real-world applications and problem-solving in geometry, and measurement.
- Increased emphasis on data analysis and comprehension in Mathematics.

STANDARDS ALIGNMENT

The content of the updated 5757 test aligns with:

- College and Career Readiness (CCR) Standards for Adult Education
- International Literacy Association (ILA) Standards for Education Support Personnel
- National Council of Teachers of Mathematics (NCTM) Principles and Standards for School Mathematics



Get Started with ParaPathways

ParaPathways is available for adoption in Fall 2025.

Contact your Director of Educational Partnerships to discuss how this assessment can transform your classroom support.

Multistate Standard-Setting Technical Report

ParaPathways (5757):

Reading and Writing (5758) Mathematics (5759)

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Executive Summary

To support the decision-making process of education agencies establishing a passing score (cut score) for the Reading and Writing (5758) and Mathematics (5759) subtests of the *ParaPathways* (5757) test, research staff from Educational Testing Service (ETS) designed and conducted a multistate standard-setting study (Tannenbaum, 2011, 2012).

Participating States

Panelists from five states, were recommended by their respective education agencies. The education agencies recommended panelists with (a) experience as paraeducators, (b) teachers or other staff who train beginning paraeducators and (b) educators who work with paraeducators.

Recommended Passing Score

ETS provides a recommended passing score from the multistate standard-setting study to help education agencies determine appropriate operational passing scores for the two subtests. For the subtests of the *ParaPathways* test, the recommended passing scores are:

- **Reading and Writing (5758):** The recommended passing score is 28 out of a possible 45 raw-score points. The scaled score associated with a raw score of 28 is 332 on a 310–350 scale.
- **Mathematics (5759):** The recommended passing score is 20 out of a possible 30 raw-score points. The scaled score associated with a raw score of 20 is 334 on a 310–350 scale.

Introduction

To support the decision-making process for education agencies establishing passing scores (cut score) for the Reading and Writing (5758) and Mathematics (5759) subtests of the *ParaPathways* (5757) test, research staff from ETS designed and conducted a multistate standard-setting study (Cizek & Bunch, 2007; Tannenbaum, 2011, 2012) in March 2025. Education agencies recommended panelists with (a) experience as paraeducators, (b) teachers or other staff who train beginning paraeducators and (b) educators who work with paraeducators. Five states, (Table 1) were represented by 10 panelists. (See Appendix A for the names and affiliations of the panelists.)

Table 1
Participating States and the Number of Panelists

Arkansas (1 panelist)	Minnesota (1 panelist)
Connecticut (1 panelist)	Maryland (4 panelists)
Delaware (3 panelists)	

The following technical report contains three sections. The first section describes the content and format of the test. The second section describes the standard-setting processes and methods. The third section presents the results of the standard-setting study.

ETS provides a recommended passing score from the multistate standard-setting study to education agencies. In each state, the department of education, the board of education, or a designated educator licensure board is responsible for establishing the operational passing score in accordance with applicable regulations. This study provides recommended passing scores, which represents the combined judgments of a group of experienced educators and paraeducators. Each state may want to consider the recommended passing scores but also other sources of information when setting the Reading and Writing (5758) and Mathematics (5759) subtests of the *ParaPathways* test (see Geisinger & McCormick, 2010; Cizek, 2020). A state may accept one or both recommended passing scores, adjust one or both scores upward to reflect more stringent expectations, or adjust one or both scores downward to reflect more lenient expectations. There are no correct decisions; the appropriateness of any adjustment may only be evaluated in terms of its meeting the state's needs.

Two sources of information to consider when setting the passing scores are the standard error of measurement (SEM) and the standard error of judgment (SEJ). The former addresses the reliability of the subtest scores and the latter, the reliability of panelists' passing-score recommendation. The SEM allows states to recognize that any test score on any standardized test—including the subtest scores from the *ParaPathways* test—is not perfectly reliable. A test score only *approximates* what a candidate truly knows or truly can do on the test. The SEM, therefore, addresses the question: How close of an approximation is the

test score to the *true* score? The SEJ allows states to gauge the likelihood that the recommended passing scores from the current panel would be similar to the passing scores recommended by other panels of experts similar in composition and experience. The smaller the SEJ, the more likely that another panel would recommend a passing score consistent with the recommended passing score. The larger the SEJ, the less likely the recommended passing scores would be reproduced by another panel.

In addition to measurement error metrics (e.g., SEM, SEJ), each state should consider the likelihood of classification errors. That is, when adjusting a passing score, policymakers should consider whether it is more important to minimize a false-positive decision or to minimize a false-negative decision. A false-positive decision occurs when a candidate's test score suggests that they should receive a license/certificate, but their actual level of knowledge/skills indicates otherwise (i.e., the candidate does not possess the required knowledge/skills). A false-negative decision occurs when a candidate's test score suggests that they should not receive a license/certificate, but they actually do possess the required knowledge/skills. States need to consider which decision error is more important to minimize. Although paraeducators are not teacher candidates, they are candidates for consideration into the job of being a paraeducator.

Overview of the Test

The *Study Companion* document (ETS, in press) for the Reading and Writing and Mathematics subtests of the *ParaPathways* test describes the purpose and structure of the subtests. In brief, both subtests measure whether entry-level paraeducators have the knowledge/skills believed necessary for competent professional practice.

The 85 minute Reading and Writing (5758) subtest contains 51 selected-response¹ items covering two content areas: *Reading* (approximately 30 items) and *Writing* (approximately 21 items).² The reporting scale ranges from 310–350 scale-score points.

The 60-minute Mathematics (5759) subtest contains 36 selected-response and numeric entry items³ covering two content areas: *Numbers and Operations* (approximately 18 items) and *Geometry, Measurement, & Data Analysis* (approximately 18 items).³ The reporting scale ranges from 310–350 scale-score points.

¹ Six of the 51 selected-response items are pretest items and do not contribute to a candidate's score.

² The number of items for each content area may vary slightly from form to form of the test.

³ Six of the 36 selected-response items are pretest items and do not contribute to a candidate's score.

Processes and Methods

The design of the standard-setting study included an expert panel. Before the study, panelists received an email explaining the purpose of the standard-setting study and requesting that they review the content specifications for each subtest. This review helped familiarize the panelists with the general structure and content of the subtests.

The standard-setting study began with a welcome and introduction by the meeting facilitator. The facilitator described the *ParaPathways* test, provided an overview of standard setting, and presented the agenda for the study. Appendix B shows the standard-setting study agenda.

Reviewing the Subtests

For each subtest, the standard-setting panelists took each subtest and then discussed the content measured. This discussion helped bring the panelists to a shared understanding of what each of the subtests do and do not cover, which serves to reduce potential judgment errors later in the standard-setting process.

The discussion covered the major content areas being addressed by each subtest. Panelists were asked to remark on any content areas that would be particularly challenging for beginning paraeducators or areas that address content particularly important for beginning paraeducators. The panel began their review with the Reading and Writing subtest, engaged in their discussion, and drafted their descriptions of the just-qualified candidate (described below). Then, this process was repeated for the Mathematics subtest.

Defining the Just-Qualified Candidate

Following the review of each subtest, panelists described the knowledge and skills of the just-qualified candidate, specific to the content that was measured on the subtest. The *just-qualified candidate description* plays a central role in standard setting (Perie, 2008); the goal of the standard-setting process is to identify the test score that aligns with this description.

The panelists created a description of the just-qualified candidate, focusing on the knowledge/skills that differentiate a *just-qualified* from a *not quite-qualified* candidate. To create this description, the panel first split into three breakout groups⁴ to consider the just-qualified candidate. In order to create a draft description for each subtest. Then they reconvened and, through whole-group discussion of the three drafts, reached consensus on the final version to use for the remainder of the study.

The written description of the just-qualified candidate summarized the panel discussion in a list format. The description was not intended to describe all the knowledge and skills of the just-qualified candidate but only highlight those that differentiate a *just-qualified candidate* from a *not-quite-qualified* candidate. A clean, PDF-version of the final description was distributed to panelists to use for the remaining phases of the study (see Appendix C for the just-qualified candidate descriptions).

⁴ The members in each breakout groups were randomized for their work on each subtest.

Panelists' Judgments

The standard-setting process for the Reading and Writing (5758) and Mathematics (5759) subtests of the *ParaPathways* (5757) test was a probability-based Modified Angoff method (Brandon, 2004; Cizek & Bunch, 2007; Hambleton & Pitoniak, 2006). Using this method, each panelist judged each item on the likelihood (probability or chance) that the just-qualified candidate would answer the item correctly. Panelists made their judgments using the following rating scale: 0, .05, .10, .20, .30, .40, .50, .60, .70, .80, .90, .95, 1. The lower the value, the less likely it is that the just-qualified candidate would answer the item correctly because the item is difficult for the just-qualified candidate. The higher the value, the more likely it is that the just-qualified candidate would answer the item correctly.

Panelists were asked to approach the judgment process in two stages. First, they reviewed both the description of the just-qualified candidate and the item and determined the probability that the just-qualified candidate would answer the question correctly. The facilitator encouraged the panelists to consider the following rules of thumb to guide their decision:

- Items in the 0 to .30 range were those the just-qualified candidate would have a *low chance* of answering correctly.
- Items in the .40 to .60 range were those the just-qualified candidate would have a *moderate chance* of answering correctly.
- Items in the .70 to 1 range were those that the just-qualified candidate would have a *high chance* of answering correctly.

Next, panelists decided how to refine their judgment within the range. For example, if a panelist thought that there was a high chance that the just-qualified candidate would answer the question correctly, the initial decision would be in the .70 to 1 range. The second decision for the panelist was to judge if the likelihood of answering it correctly is .70, .80, .90, .95 or 1.

After the training, panelists made practice judgments and discussed those judgments and their rationales. All panelists completed a post-training evaluation to confirm that they had received adequate training in the Modified Angoff method and felt prepared to continue; the standard-setting process continued only if all panelists confirmed their readiness.

Following this first round of judgments (*Round 1*), item-level feedback was provided to the panel. The panelists' judgments were displayed for each item and summarized across panelists. Item-level data were highlighted to show when panelists diverged in their judgments or converged in their judgments (i.e., when at least two-thirds of the panelists' judgments were in the same difficulty range).

The panelists discussed their item-level judgments. These discussions helped panelists maintain a shared understanding of the knowledge/skills of the just-qualified candidate and helped to clarify aspects of items that might not have been clear to all panelists during the Round 1 judgments. The purpose of the discussion was not to encourage panelists to conform to each other's judgment, but for them to understand the different, but relevant, perspectives among them.

In Round 2, panelists discussed their Round 1 judgments and were encouraged by the facilitator (a) to share the rationales for their judgments and (b) to consider their judgments in light of the rationales provided by the other panelists. Panelists recorded their Round 2 judgments only for items when they wished to change a Round 1 judgment. Panelists' final judgments for the study, therefore, consist of their Round 1 judgments and any adjusted judgments made during Round 2. The process was completed for the Reading and Writing subtest before the panel completed their Rounds 1 and 2 for the Mathematics subtest.

Results

Expert Panels

Table 2 presents a summary of the panelists' demographic information. The panel included 10 educators representing five states. (See Appendix A for a listing of panelists.) Four panelists were paraeducators, three were teachers, one was college faculty, two were educational specialists, and one was an assistant superintendent for pupil services.

Table 2
Panel Member Demographics

Background Survey Question	Number	Percent
What is your current position?	<u>N</u>	<u>%</u>
Paraeducator	4	40
Teacher	3	30
Educational specialist	2	20
Assistant superintendent for pupil services	1	10
How do you describe yourself (i.e., race/ethnicity)?	<u>N</u>	<u>%</u>
Black or African American	5	50
Hispanic or Latino	1	10
White	4	40
What is your gender?	<u>N</u>	<u>%</u>
Female	7	70
Male	3	30
Are you currently working as an educator or paraeducator in your state?	<u>N</u>	<u>%</u>
Yes	9	90
No	1	10
I am not currently working at the P-12 level	0	0
Are you currently supervising or mentoring paraeducators?	<u>N</u>	<u>%</u>
Yes	7	70
No	3	30
I am not currently working at the P-12 level	0	0

Background Survey Question	Number	Percent
Including this year, how many years of experience do you have as an educator or paraeducator?	<u>N</u>	<u>%</u>
3 years or less	1	10
4–7 years	1	10
8–11 years	0	0
12–15 years	1	10
16 years or more	7	70
I am not currently working at the P-12 level	0	0
Which best describes the location of your K–12 school?	<u>N</u>	<u>%</u>
Urban	4	40
Suburban	2	20
Rural	3	30
Not currently working at the K–12 level	1	10

Standard-Setting Judgments

For each subtest, tables 3 and 4 show the passing score recommendations of each panelist at each round—the number of raw points needed to “pass” the test. The recommendations are the raw score points needed out of a maximum of 45 for the Reading and Writing (5758) subtest and a maximum of 30 for the Mathematics (5759) subtest.

Table 3

Raw Score Recommendation of Each Panelist by Round of Judgments – Reading and Writing (5758)

Panelist	Round 1	Round 2
1	35.30	32.20
2	21.15	23.65
3	21.50	23.00
4	28.80	29.05
5	32.60	31.30
6	21.80	22.10
7	27.65	28.25
8	39.25	28.35
9	33.90	31.70
10	28.20	27.50

Table 4**Raw Score Recommendation of Each Panelist by Round of Judgments – Mathematics (5759)**

Panelist	Round 1	Round 2
1	22.40	21.40
2	20.00	21.20
3	19.80	19.90
4	21.50	21.20
5	17.00	17.60
6	19.25	19.15
7	19.10	19.60
8	17.10	18.60
9	19.00	18.70
10	17.95	18.25

Tables 5 and 6 summarize the standard-setting judgments of the panel at each round of judgment for each subtest. The mean represents the panel's passing score recommendation at each round. Tables 5 and 6 also include the standard deviation and the standard error of judgment (SEJ). The SEJ is one way of estimating the reliability or consistency of a panel's standard-setting judgments. It indicates how likely it would be for several other panels of educators similar in makeup, experience, and standard-setting training to the current panel to recommend the same passing score on the same form of the test. (Appendix D provides the technical notes, which further describe the SEJ.)

Table 5**Summary Statistics by Round of Judgments – Reading and Writing (5758)**

Statistic	Round 1	Round 2
Mean	29.02	27.71
Minimum	21.15	22.10
Maximum	39.25	32.20
SD	6.27	3.68
SEJ	1.98	1.16

Table 6**Summary Statistics by Round of Judgments – Mathematics (5759)**

Statistic	Round 1	Round 2
Mean	19.31	19.56
Minimum	17.00	17.60
Maximum	22.40	21.40
SD	1.74	1.34
SEJ	0.55	0.43

Round 1 judgments are made without discussion among the panelists. Therefore, there is typically more variability in judgments present in the first round. Round 2 judgments, however, are informed by panel discussion; thus, it is common to see a decrease both in the standard deviation and SEJ. This decrease—indicating convergence among the panelists' judgments—was observed (see Tables 5 and 6).

The Round 2 mean score is the panel's final recommended passing score. The panel's passing

score recommendation for the Reading and Writing subtest is 27.71 (out of a possible 45 raw-score points). The value was rounded to the next highest whole number, 28, to determine the functional recommended passing score. The scale score associated with 28 raw points is 332.

The conditional standard error of measurement (CSEM) around the recommended passing score is 3.29 raw points. A standard error represents the uncertainty associated with a test score (See Appendix D for further information about the CSEM.) Table 7 shows the raw scores and the scale scores associated with one and two CSEM below and above the recommended passing score for the Reading and Writing subtest.

Table 7

Scores 1 and 2 CSEM Around the Recommended Passing Score (RPS) – Reading and Writing (5758)

Scores	Raw Score Points out of 45	Scale Score Equivalent
RPS - 2 CSEM	22	324
RPS - 1 CSEM	25	328
RPS	28	332
RPS +1 CSEM	32	337
RPS +2 CSEM	35	340

Notes. CSEM = conditional standard error(s) of measurement. The CSEM of the recommended passing score is 3.29 raw points. The unrounded CSEM value is added to, or subtracted from, the rounded passing-score recommendation. The resulting values are rounded up to the next-highest whole number and then converted to scale scores.

Table 8 shows that the panel's passing score recommendation (the Round 2 mean score) for the Mathematics subtest is 19 (out of a possible 30 raw-score points). The value was rounded to the next highest whole number, 20, to determine the functional recommended passing score. The scale score associated with 20 raw points is 334.

The conditional standard error of measurement (CSEM) around the recommended passing score is 2.63 raw points. A standard error represents the uncertainty associated with a test score (See Appendix D for further information about the CSEM.) Table 8 shows the raw scores and the scale scores associated with one and two CSEM below and above the recommended passing score for the Mathematics subtest.

Table 8

Scores 1 and 2 CSEM Around the Recommended Passing Score (RPS) – Mathematics (5759)

Scores	Raw Score Points out of 30	Scale Score Equivalent
RPS - 2 CSEM	15	325
RPS - 1 CSEM	18	330
RPS	20	334
RPS +1 CSEM	23	340
RPS +2 CSEM	26	345

Notes. CSEM = conditional standard error(s) of measurement. The CSEM of the recommended passing score is 2.63 raw points. The unrounded CSEM value is added to, or subtracted from, the rounded passing-score recommendation. The resulting values are rounded up to the next-highest whole number and then converted to scale scores.

Final Evaluations

The panelists completed an evaluation at the conclusion of the standard-setting study. The evaluation asked the panelists to provide feedback about the quality of the standard-setting implementation and the factors that influenced their decisions. The responses to the evaluation provided evidence of the validity of the standard-setting process, and, as a result, evidence of the reasonableness of the recommended passing score.

Panelists were shown the panel's recommended passing scores for both subtests after completing their Mathematics Round 2 judgments and asked, in the evaluation, (a) how comfortable they are with the recommended passing score and (b) if they think the score was *too high*, *too low*, or *about right*. A summary of the final evaluation results is presented in Appendix E.

Nine of the 10 panelists *strongly agreed* or *agreed* that they understood the purpose of the study; one panelist *disagreed*. Nine of the 10 panelists *strongly agreed* or *agreed* that the facilitator's instructions and explanations were clear; one panelist *disagreed*. It is important to note that after the training in the standard-setting methodology and the practice round, which included discussion, all panelists indicated that they understood the purpose of the study and that they were ready to proceed. All panelists *strongly agreed* or *agreed* that they were prepared to make their standard-setting judgments. All panelists *strongly agreed* or *agreed* that the standard-setting process was easy to follow.

All panelists reported that the description of the just-qualified candidate was *very influential* in guiding their standard-setting judgments. All of the panelists reported that between-round discussions were at least *somewhat influential* in guiding their judgments. Eight of the 10 panelists indicated that their own professional experience was *very influential* in guiding their judgments.

For the Reading and Writing (5758) subtest, eight of the 10 panelists indicated they were *very comfortable* with the passing score they recommended; two were *somewhat comfortable*. Nine of the 10 panelists indicated the recommended passing score was *about right*; one panelist felt that the recommended passing score was *too high*.

For the Mathematics (5759) subtest, all of the panelists indicated they were *very comfortable* with the passing score they recommended. All of the panelists indicated the recommended passing score was *about right*.

Summary

To support the decision-making process for education agencies establishing passing scores (cut score) for the Reading and Writing (5758) and Mathematics (5759) subtests of the *ParaPathways* test, research staff from ETS designed and conducted a multistate standard-setting study.

ETS provides a recommended passing score from the multistate standard-setting study to help education agencies determine an appropriate operational passing score. For the subtests of the *ParaPathways* test, the recommended passing scores are:

- **Reading and Writing:** The recommended passing score is 28 out of a possible 45 raw-score points. The scaled score associated with a raw score of 28 is 332 on a 100–200 scale.
- **Mathematics:** The recommended passing score is 20 out of a possible 30 raw-score points. The scaled score associated with a raw score of 20 is 334 on a 100–200 scale.

References

- Brandon, P. R. (2004). Conclusions about frequently studied modified Angoff standard-setting topics. *Applied Measurement in Education*, 17, 59–88.
- Brennan, R. L. (2002, October). Estimated standard error of a mean when there are only two observations (Center for Advanced Studies in Measurement and Assessment Technical Note Number 1). *Iowa City: University of Iowa*.
- Cizek, G. J., & Bunch, M.B. (2007). *Standard setting: A guide to establishing and evaluating performance standards on tests*. Thousand Oaks, CA: Sage.
- Cizek, G. J. (2020). *Validity: An integrated approach to test score meaning and use*. Routledge.
- ETS. (in press). *ParaPathways (5757)*. Princeton, NJ: Author.
- Geisinger, K. F., & McCormick, C. M. (2010). Adopting cut scores: post-standard-setting panel considerations for decision makers. *Educational Measurement: Issues and Practice*, 29, 38–44.
- Hambleton, R. K., & Pitoniak, M. J. (2006). Setting performance standards. In R. L. Brennan (Ed.), *Educational Measurement* (4th ed., pp. 433–470). Westport, CT: American Council on Education/Praeger.
- Lord, F.M. (1984). Standard errors of measurement at different ability levels. *Journal of Educational Measurement*, 21, 239-283.
- Perie, M. (2008). A guide to understanding and developing performance-level descriptors. *Educational Measurement: Issues and Practice*, 27, 15–29.
- Tannenbaum, R. J., & Katz, I. R. (2013). Standard setting. In K. F. Geisinger (Ed.), *APA handbook of testing and assessment in psychology: Vol. 3. Testing and assessment in school psychology and education* (pp. 455–477). Washington, DC: American Psychological Association.
- Tannenbaum, R. J. (2011). Setting standards on *The Praxis Series™* tests: A multistate approach. *R&D Connections*, 17, 1-9.
- Tannenbaum, R. J. (2012). A multistate approach to setting standards: An application to teacher licensure tests. *CLEAR Exam Review*, 23(1), 18-24.

Appendix A: Panelists' Names & Affiliations

Participating Panelists With Affiliation and State

<u>Panelist Name</u>	<u>Panelists' Affiliation and State Abbreviation</u>
Adebisi Babayemi	Prince George's County Public Schools (MD)
Evanthia Boling	Kennedy Krieger Institute (MD)
Missy Fee	Annandale School District (MN)
Norbert Gouanet	Prince George's County Public Schools (MD)
Cynthia Jones	Love Creek Elementary School (DE)
Theresa May	St Georges Technical High School (DE)
Tilesa McFee	Delaware State Education Association (DE)
Miguel Pabon	Capitol Region Education Council (CT)
Tyshawn Richardson	Kennedy Krieger Institute (MD)
Alisha Ross	Arkansas Department of Education (AR)

Note. All panelists agreed to be listed as participants in the study.

Appendix B: Agenda

ParaPathways (5757)

Standard-Setting Study

Day 1 Agenda

10:00 AM ET / 9:00 AM CT / 8:00 AM MT
/ 7:00 AM PT / 6:00 AM AK / 5:00 AM HI

Welcome, introductions, and goals for the day

Standard-setting overview presentation

- Q&A about the training
- Polling: Checking for understanding

Test familiarization for the Reading and Writing (5758) subtest

- Overview & instructions
- Independent test familiarization
- Self-scoring instructions
- Independent self-scoring

Break

Discussion of the content measured

Lunch break

Just-Qualified Candidate – Reading and Writing (5758) subtest

- Overview
- Polling: Evaluation of JQC training
- Small group drafts

Break

Test familiarization for the Mathematics (5759) subtest

- Independent test familiarization
- Self-scoring instructions
- Independent self-scoring

Discussion of the content measured

Just-Qualified Candidate – Mathematics (5759) subtest

- Small group drafts

7:00 PM ET / 6:00 PM CT / 5:00 PM MT /
4:00 PM PT / 3:00 PM AK / 2:00 PM HI

End of Day 1

ParaPathways (5757)

Standard-Setting Study

Day 2 Agenda

**10:00 AM ET / 9:00 AM CT / 8:00 AM MT
/ 7:00 AM PT / 6:00 AM AK / 5:00 AM HI**

Overview of the Day

Just-Qualified Candidate – Reading and Writing (5758) subtest

- Whole group consensus

Break

Just-Qualified Candidate – Mathematics (5759) subtest

- Whole group consensus

Lunch break

Standard Setting Training for Selected-Response Items

- Instructions and materials
- Independent practice round judgments

Break

Practice Round Data Discussion

- Instructions, materials, and screen setup
- Discussion of the practice round data
- Polling: Evaluation of the judgment training

Round 1 Standard Setting Judgments – Reading and Writing (5758) subtest

End of Day 2

**7:00 PM ET / 6:00 PM CT / 5:00 PM MT /
4:00 PM PT / 3:00 PM AK / 2:00 PM HI**

ParaPathways (5757)

Standard-Setting Study

Day 3 Agenda

**10:00 AM ET / 9:00 AM CT / 8:00 AM MT
/ 7:00 AM PT/ 6:00 AM AK / 5:00 AM HI**

Overview of the Day

Honoraria Payment Process Presentation

Round 1 feedback: Summary data – Reading and Writing (5758) subtest

- Polling: Evaluation of data presentation & Round 2 training

Round 1 feedback: Item-level data and Round 2 judgments (**break** as needed) – Reading and Writing (5758) subtest

Lunch break

Round 1 Standard Setting Judgments – Mathematics (5759) subtest

Break

Round 1 feedback: Summary data – Mathematics (5759) subtest

Round 1 feedback: Item-level data and Round 2 judgments (break as needed) – Mathematics (5759) subtest

Break

Round 2 feedback: Recommended Passing Scores for both subtests

Complete final evaluation

Wrap Up/ Final Steps

- Review Nondisclosure of Secure Materials
 - Destruction of materials
 - What you can/cannot discuss
- Final Questions and Thank You

**7:00 PM ET/ 6:00 PM CT / 5:00 PM MT /
4:00 PM PT / 3:00 PM AK / 2:00 PM HI**

End of Study

Appendix C: Just-Qualified

Candidate Descriptions

Description of the Just-Qualified Candidate⁵

Reading & Writing (5758)

A just-qualified candidate...

1. Can infer information that is directly stated in informational text
2. Can identify main ideas, themes, and supporting details of text with minimum complexity
3. Can identify author's purpose and point of view of a text with minimum complexity.
4. Can use context clues to understand unfamiliar vocabulary when reading simple text.
5. Can identify evidence to support an argument within a simple text or simple visual representation
6. Can clearly organize ideas and make connections with supporting details.
7. Can revise simple text for clarity, grammar, conventions, and usage for comprehension
8. Identifies relevant information about a topic, recognizes credible sources, and attempts to give credit to the sources
9. Can Identify and apply basic principles of phonics
10. Can communicate with students in different ways to support them with their writing (e.g., revising & revisiting) and reading comprehension (e.g., through questioning)

⁵ Description of the just-qualified candidate focuses on the knowledge/skills that differentiate a *just* from a *not quite* qualified candidate.

Description of the Just-Qualified Candidate⁶

Mathematics (5759)

A just-qualified candidate...

1. Uses the four operations to solve problems involving integers.
2. Solves one and two-step problems using decimals, percents, and fractions
3. Can compare two quantities
4. Develops equations to solve basic word problems.
5. Solves simple Geometrical problems involving area, perimeter, volume
6. Solves one-step ratios and proportions problems using pie-charts, tables, or other visuals.
7. Solves single variable linear equations.
8. Uses properties of operations to simplify algebraic expressions.
9. Understands the defining attributes of two-dimensional shapes and can use them to solve geometric problems.
10. Has the ability to convert within the same measurement system, given the rule
11. Understands of order of operations.

⁶ Description of the just-qualified candidate focuses on the knowledge/skills that differentiate a *just* from a *not quite* qualified candidate.

Appendix D: Technical Notes

Standard Error of Judgment (SEJ)

The standard error of judgment (SEJ) is one way of estimating the reliability or consistency of a panel's standard-setting judgments. It indicates how likely it would be for several other panels of educators similar in makeup, experience, and standard-setting training to the current panel to recommend the same threshold score on the same form of the assessment. The SEJ assumes that panelists are randomly selected and that standard-setting judgments are independent. It is seldom the case that panelists are randomly sampled, and only the first round of judgments may be considered independent. The SEJ, therefore, likely underestimates the uncertainty of threshold scores (Tannenbaum & Katz, 2013).

The SEJ (SEJ_{Mn}) is calculated by dividing the standard deviation of the panelists' judgments (SD) by the square root of the number of panelists (n). The result serves as an estimate of the standard error of the mean (Brennan, 2002).

$$SEJ_{Mn} = SD/\sqrt{n}$$

Conditional Standard Error of Measurement (CSEM)

The conditional standard error of measurement ($CSEM$) for a test is computed from the study value (SV) of the recommended passing score and the number of selected-response items (n) on the test (see Lord, 1984):

$$CSEM = \sqrt{(SV)(n - SV)/(n - 1)}$$

Appendix E: Final Evaluation Results

Table E1
Final Evaluation Process Questions

Likert Statement	Strongly agree <i>N</i>	Strongly agree %	Agree <i>N</i>	Agree %	Disagree <i>N</i>	Disagree %	Strongly disagree <i>N</i>	Strongly disagree %
I understood the purpose of this study.	7	70	2	20	1	10	0	0
The instructions and explanations provided by the facilitator were clear.	6	60	3	30	1	10	0	0
The training in the standard-setting method was adequate to give me the information I needed to complete my assignment.	7	70	3	30	0	0	0	0
The explanation of how the recommended passing score is computed was clear.	6	40	4	40	0	0	0	0
The opportunity for feedback and discussion for round 2 judgments was helpful.	9	90	1	10	0	0	0	0
The process of making the standard-setting judgments was easy to follow.	4	40	6	60	0	0	0	0

Table E2***Final Evaluation: Standard-Setting Process***

	Too much time <i>N</i>	Too much time %	About the right amount of time <i>N</i>	About the right amount of time %	Too little time <i>N</i>	Too little time %
Small group JQC drafts	0	0	9	90	1	10
Whole group JQC consensus	1	10	9	90	0	0
Training and practice for making standard-setting judgments	1	10	9	90	0	0
Round 1 judgments (independent)	2	20	8	80	0	0
Round 2 judgments (with discussion)	1	10	9	90	0	0

Table E3***Final Evaluation: Influences in Standard-Setting Judgments***

How influential was each of the following factors in guiding your standard-setting judgments?	Very influential <i>N</i>	Very influential %	Somewhat influential <i>N</i>	Somewhat influential %	Not influential <i>N</i>	Not influential %
The description of the just-qualified candidate	10	100	0	0	0	0
The between-round discussions	7	70	3	30	0	0
The knowledge/skills required to answer each test item	8	80	2	20	0	0
The passing scores of other panel members	4	40	6	60	0	0
My own professional experience	8	80	2	20	0	0

Table E4
Final Evaluation: Comfort with the Panel’s Recommendation

Question	Very comfort- able <i>N</i>	Very comfort- able %	Somewhat comfort- able <i>N</i>	Somewhat comfort- able %	Somewhat uncom- fortable <i>N</i>	Somewhat uncom- fortable %	Very uncom- fortable <i>N</i>	Very uncom- fortable %
Overall, how comfortable are you with the panel's recommended passing score?								
Reading and Writing	8	80	2	20	0	0	0	0
Mathematics	10	100	0	0	0	0	0	0

Table E5
Final Evaluation: Opinion of the Final Recommendation

Statement	Too low <i>N</i>	Too low %	About right <i>N</i>	About right %	Too high <i>N</i>	Too high %
Overall, the recommended passing score is:						
Reading and Writing	0	0	9	90	1	10
Mathematics	0	0	10	100	0	0



UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: R277-487, Public School Data Confidentiality and Disclosure (Amendment)

Agenda item type:

Action Item

Recommended Action:

That the Committee approve R277-487, Public School Data Confidentiality and Disclosure, Draft 1, on first reading and forward to the September Law and Licensing Committee.

Purpose of Memo:

Requested by 3 or more members of the board

Background:

This agenda item is brought forward pursuant to USBE Board Bylaws Article VII, Section 5, following a formal Board Member Request submitted on July 11, 2026, by Committee Chair/Board Member Kerry, co-sponsored by Board Members Brinton and Hall. The requesters seek to amend **Board Rule R277-487** to establish a clear requirement that **all student data collected, processed, or stored by or on behalf of Utah public schools, LEAs, or the State Board must be hosted exclusively within the United States and subject to U.S. federal and state law.**

In order to facilitate an in-depth and well researched approach to this topic, the committee will consider this item in both August and September committee meetings.

Questions for consideration by board members and staff include:

- How would this rule change affect “edge cases”? For example:
 - If a classroom teacher travels out of the country and has a spreadsheet of student data stored on her laptop, would she be breaking the law?
 - Would this policy change impact whether a third-party contractor could outsource their customer service or software development to another country?
- Does the rule need to contemplate the difference between data storage and data processing?
- Should the rule identify whether the intent is to address data centers in particular, or data storage more broadly (for example, storage on local computers and phones)?
- What would be the likely cost of this rule change to USBE? LEAs? Tax payers?
 - Cost considerations to be explored before September committee meeting:
 - Some products only allow you to guarantee your data storage in the U.S. with certain tiers of service.
 - Ex. Many LEAs utilize the free versions of popular products. Because there is not a contractual agreement, LEAs can not guarantee where data is stored. If this rule passed, every LEA would have to move to the paid version of all of their products.
- Should subprocessors of third-party contracts be held to the same data storage standard? If so, would this require any additional agreements with subprocessors?
- Would this rule limit the number of third-party contractors with which the LEA and USBE could do business? For example:

- Would this limit some of the software curriculum options used by Dual Language Immersion (DLI) programs?
- Would this limit Career and Technical Education (CTE) programs, which often are more challenging to negotiate contracts with?
- Should the rule include an explicit, narrowly tailored administrative waiver process—managed by the Superintendent or the Board—that permits an LEA to use a critical sole-source software tool if no compliant U.S. alternative exists, provided risk mitigation protocols are met?
- Are there other avenues for accomplishing the matter of governance? For example, could contract language include provisions clarifying that U.S. laws govern the data?

Staff will present R277-487, Public School Data Confidentiality and Disclosure, Draft 1, for consideration and approval.

Authorizing, and Implemented or Interpreted Law: [Art X Sec 3](#); [53E-9-302](#); [53E-3-401](#); [53G-11-511](#)

Contact:

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Attachments:

1. R277-487 - Draft 1 - August 2026 Committee
2. R277-487 Reporting Burden and Fiscal Impact Estimate Form

R277. Education, Administration.

R277-487. Public School Data Confidentiality and Disclosure.

R277-487-1. Authority^[,] and Purpose^[,] ~~and Oversight Category~~.

(1) This rule is authorized by:

(a) Utah Constitution Article X, Section 3, which vests general control and supervision over public education in the Board;

(b) Subsection 53E-3-401(4), which allows the Board to make rules to execute the Board's duties and responsibilities under the Utah Constitution and state law;

(c) Subsection 53E-9-302(1), which directs that the Board may make rules to establish student data protection standards for public education employees, student aides, and volunteers; and

(d) Subsection 53G-11-511(4), which directs that the Board may make rules to ensure the privacy and protection of individual evaluation data.

(2) The purpose of this rule is to:

(a) provide for appropriate review and disclosure of student performance data on state administered assessments as required by law;

(b) provide for adequate and appropriate review of student performance data on state administered assessments to professional education staff and parents of students;

(c) ensure the privacy of student performance data and personally identifiable student data, as directed by law; and

(d) provide for appropriate protection and maintenance of educator licensing data.

~~[(3) This rule is categorized as Category 4 as described in Rule R277-111.]~~

R277-487-2. Definitions.

(1) "Classroom-level assessment data" means student scores on state-required tests, aggregated in groups of more than ten students at the classroom level or, if appropriate, at the course level, without individual student identifiers of any kind.

(2) "Comprehensive Administration of Credentials for Teachers in Utah Schools" or "CACTUS" means the electronic file maintained and owned by the Board on all licensed Utah educators, which includes information such as:

- (a) personal directory information;
- (b) educational background;
- (c) endorsements;
- (d) employment history; and
- (e) a record of disciplinary action taken against the educator.

(3) "Confidentiality" refers to an obligation not to disclose or transmit information to unauthorized parties.

(4) "Cyber security framework" means:

(a) the cyber security framework developed by the Center for Internet Security found at <http://www.cisecurity.org/controls/>; or

(b) a IT security framework that is comparable to the cyber security framework described in Subsection (6)(a).

(5) "Data governance plan" has the same meaning as defined in Subsection 53E-9-301(6).

(6) "Destroy" means to remove data or a record:

- (a) in accordance with current industry best practices; and
- (b) rendering the data or record irretrievable in the normal course of business of an LEA or a third-party contractor.

(7) "Disclosure" includes permitting access to, revealing, releasing, transferring, disseminating, or otherwise communicating all or any part of any individual record orally, in writing, electronically, or by any other communication method.

(8) "Expunge" means to seal a record so as to limit its availability to all except authorized individuals.

(9) "Enrollment verification data" includes:

- (a) a student's birth certificate or other verification of age;
- (b) verification of immunization or exemption from immunization form;

(c) proof of Utah public school residency;

(d) family income verification; or

(e) special education program information, including:

(i) an individualized education program;

(ii) a Section 504 accommodation plan; or

(iii) an English language learner plan.

(10) "FERPA" means the Family Educational Rights and Privacy Act of 1974, 20 U.S.C. 1232g, and its implementing regulations found at 34 C.F.R., Part 99.

(11) "LEA" includes, for purposes of this rule, the Utah Schools for the Deaf and the Blind.

(12) "Metadata dictionary" means any tool, document, or display that meets the requirements of Subsection 53E-9-301(11).

(13) "Personally identifiable student data" has the same meaning as defined in Subsection 53E-9-301(14) and 34 CFR 99.3.

(14) "Privacy practice" has the same meaning as described in Section 63A-19-101.

(15) "Significant data breach" means a data breach where:

(a) an intentional data breach successfully compromises student records;

(b) a large number of student records are compromised;

(c) sensitive records are compromised, regardless of number; or

(d) a data breach an LEA deems to be significant based on the surrounding circumstances.

(16) "Student performance data" means data relating to student performance, including:

(a) data on state, local and national assessments;

(b) course-taking and completion;

(c) grade-point average;

(d) remediation;

(e) retention;

(f) degree, diploma, or credential attainment; and

(g) enrollment and demographic data.

(17) "Third-party contractor" has the same meaning as defined in Subsection 53E-9-301(23).

R277-487-3. Data Privacy and Security Policies.

(1) By November 15 annually, each LEA shall provide the Superintendent with the following information:

(a) the name and contact information for the LEA's designated data manager and information security officer.

(b) evidence that the LEA has implemented:

(i) privacy requirements outlined in:

(A) Title 53E, Chapter 9, Part 2, Student Privacy;

(B) Title 53E, Chapter 9, Part 3, Student Data Protection;

(C) Title 63A, Chapter 19, Government Data Privacy Act;

(D) FERPA; and

(E) 20 U.S.C. 1232b, Protection of Pupil Rights Amendment; and

(ii) other privacy practices identified by the Superintendent; and

(iii) a cybersecurity framework.

(2) An LEA shall ensure that school enrollment verification data, student performance data, and personally identifiable student data are collected, maintained, and transmitted:

(a) in a secure manner; and

(b) consistent with sound data collection and storage procedures based on the LEA's cyber security framework.

(3) An LEA shall report all significant data breaches of student data either by the LEA or by third parties to the Superintendent within ten business days of the initial discovery of the significant data breach.

(4) All public education employees, aides, and volunteers shall maintain appropriate confidentiality pursuant to federal, state, local laws, and LEA policies created in accordance with this section, with regard to student performance data and personally identifiable student data.

(5) An employee, aide, or volunteer may not share, disclose, or disseminate passwords for electronic maintenance of:

- (a) student performance data; or
- (b) personally identifiable student data.

(6) A public education employee licensed under Section 53E-6-201 may only access or use student information and records if the public education employee accesses the student information or records consistent with the educator's obligations under Rule R277-217.

(7) The Board may discipline a licensed educator in accordance with licensing discipline procedures if the educator violates this Rule R277-487.

(8) In accordance with the LEA's data governance plan, each LEA shall annually provide a training regarding the confidentiality of student data to any employee with access to education records as defined in FERPA.

R277-487-4. Retention of Student Data.

(1) An LEA shall classify all student data collected in accordance with Section 63G-2-604.

(2) An LEA shall retain and dispose of all student data in accordance with an approved retention schedule.

(3) If no existing retention schedule governs student disciplinary records collected by an LEA:

- (a) An LEA may propose to the State Records Committee a retention schedule of up to one year if collection of the data is not required by federal or state law or Board rule; or

(b) An LEA may propose to the State Records Committee a retention schedule of up to three years if collection of the data is required by federal or state law or Board rule, unless a longer retention period is prescribed by federal or state law or Board rule.

(4) An LEA's retention schedules shall take into account the LEA's administrative need for the data.

(5) Unless the data requires permanent retention, an LEA's retention schedules shall require destruction or expungement of student data after the administrative need for the data has passed.

(6) A parent or adult student may request that an LEA amend, expunge, or destroy any record not subject to a retention schedule under Section 63G-2-604, and believed to be:

(a) inaccurate;

(b) misleading; or

(c) in violation of the privacy rights of the student.

(7) An LEA shall process a request under Subsection (6) following the same procedures outlined for a request to amend a student record in 34 CFR Part 99, Subpart C.

R277-487-5. CACTUS Data.

(1) The Board maintains information on all licensed Utah educators in CACTUS, including information classified as private, controlled, or protected under GRAMA.

(2) The Superintendent shall open a CACTUS file for a licensed Utah educator when the individual initiates a Board background check.

(3) Authorized Board staff may update CACTUS data as directed by the Superintendent.

(4) Authorized LEA staff may change demographic data and update data on educator assignments in CACTUS for the current school year only.

(5) A licensed individual may view the individual's own personal data, but may not change or add data in CACTUS except under the following circumstances:

(a) A licensee may change the licensee's contact and demographic information at any time;

(b) An employing LEA may correct a current educator's assignment data on behalf of a licensee; and

(c) A licensee may petition the Superintendent to correcting any errors in the licensee's CACTUS file.

(6) The Superintendent shall include an individual currently employed by a public or private school under a letter of authorization or as an intern in CACTUS.

(7) The Superintendent shall include an individual working in an LEA as a student teacher in CACTUS.

(8) The Superintendent shall provide training and ongoing support to authorized CACTUS users.

(9) For employment or assignment purposes only, authorized LEA staff members may:

(a) access data on individuals employed by the LEA; or

(b) view specific limited information on job applicants if the applicant has provided the LEA with a CACTUS identification number.

(10) CACTUS information belongs solely to the Board.

(g) The Superintendent may release data within CACTUS in accordance with Title 63G, Chapter 2, Government Records Access and Management Act.

R277-487-6. Educator Evaluation Data.

(1)(a) The Superintendent may provide classroom-level assessment data to administrators and teachers in accordance with federal and state privacy laws.

(b) A school administrator shall share information requested by parents while ensuring the privacy of individual personally identifiable student data and educator evaluation data.

(2) A school, LEA, the Superintendent, and the Board shall protect individual educator evaluation data.

(3) An LEA shall designate employees who may have access to educator evaluation records.

(4) An LEA may not release or disclose student assessment information that reveals educator evaluation information or records.

(5) An LEA shall train employees in the confidential nature of employee evaluations and the importance of securing evaluations and records.

R277-487-7. Application to Third Parties.

(1) A third-party contractor shall protect student personally identifiable information against unauthorized access and redisclosure, both physical and digital.

(2) A third-party contractor shall have policies in place that follow reasonably industry best practices and adequately address the protection of student personally identifiable information.

(3) A third-party contractor shall develop and document an information security program.

(4) A third-party contract shall inform an LEA or the Superintendent of the precautions taken regarding the maintenance and protection of student personally identifiable information.

(5) For the purposes of meeting the audit requirements of a contract subject to Subsection 53E-9-309(2)(e), a third-party contractor may:

(a) provide an LEA or the Superintendent a self-assessment of their compliance with the contract and the effectiveness of the information security program described in Subsection (3);

(b) provide responses to a questionnaire provided by the LEA or Superintendent;

(c) provide a report of an industry-recognized privacy and security audit, such as an SOC2 or SOC3; or

(d) submit to an onsite audit, if agreed upon by the third-party contract and the LEA or Superintendent.

R277-487-8. Sharing Data With the Utah Registry of Autism and Developmental Disabilities.

(1) The Superintendent shall share personally identifiable student data with the Utah Registry of Autism and Developmental Disabilities as required by Subsection 53E-9-308(6)(b) through a written agreement designating the Utah Registry of Autism and Developmental Disabilities as the authorized representative of the Board for the purpose of auditing and evaluating federal and state supported education programs that serve students with autism and other developmental disabilities.

(2) The agreement required by Subsection (1) shall include a provision that:

(a) the Utah Registry of Autism and Developmental Disabilities may not use personally identifiable student data for any purpose not specified in the agreement;

(b) the Utah Registry of Autism and Developmental Disabilities shall flag all student personally identifiable data received from the Board to:

(i) ensure that the data is not used for purposes not covered by the agreement; and

(ii) allow the Superintendent access to the data for auditing purposes;

(c) the Utah Registry of Autism and Developmental Disabilities may redisclose de-identified data if:

(i) the de-identification is in accordance with HIPAA's safe harbor standard;

(ii) the de-identification is in accordance with Board rule; and

(iii) the Utah Registry of Autism and Development Disabilities annually provides the Superintendent with a description and the results of all projects and research undertaken using de-identified student data; and

(d) the Utah Registry of Autism and Developmental Disabilities shall allow an audit that meets the requirements of Subsection R277-487-7(5) conducted by the Superintendent to monitor for compliance with this rule no less than once per year.

(3) The Superintendent shall maintain a record of all personally identifiable student data shared with the Utah Registry of Autism and Developmental Disabilities in accordance with 34 C.F.R. 99.32.

(4)(a) A parent of a child whose personally identifiable student data were shared with the Utah Registry of Autism and Developmental Disabilities has the right to access the exact records disclosed.

(b) A parent identified in Subsection (4)(a) has the right to contest and seek to amend, expunge, or destroy any data that are inaccurate, misleading, or otherwise in violation of the privacy rights of the student.

R277-487-9. Data Storage and Governance.

(1) The state board and an LEA shall store all student data in the United States.

(2) Student data stored by the state board or an LEA shall be subject to the laws of the United States of America.

KEY: students, records, confidentiality, privacy

Date of Last Change: July 8, 2025

Notice of Continuation: May 10, 2024

Authorizing, and Implemented or Interpreted Law: Art X Sec 3; 53E-9-302; 53E-3-401; 53G-11-511

Utah State Board of Education

Reporting Burden and Fiscal Impact Estimate

R277-487 – Public School Data Confidentiality and Disclosure (Amendment)

1. Reporting Burden for LEAs

This rule change does not add any reports for LEAs.

2. Estimated Fiscal Impact on USBE

This rule change is not estimated to have measurable fiscal impacts on USBE.

3. Estimated Fiscal Impact on LEAs

This rule change is not estimated to have fiscal impacts on LEAs.

Author: Sam Urie

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: R277-608, Emergency Safety Interventions and Prohibition of Corporal Punishment (Amendment)

Agenda item type:

Action Item

Recommended Action:

That the Committee approve R277-608, Emergency Safety Interventions and Prohibition of Corporal Punishment, Draft 1, on first reading and forward to the Board for approval on second and final reading.

Purpose of Memo:

Result of legislative action

Background:

Changes to the requirements for seclusion rooms require amendments to the rule.

Staff will present R277-608, Emergency Safety Interventions and Prohibition of Corporal Punishment, Draft 1, for consideration and approval.

Authorizing, and Implemented or Interpreted Law: [Art X Sec 3](#); [53E-3-401](#)(4); [53G-8-301](#)

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Attachments:

1. R277-608 - Draft 1 - August 2026 Committee
2. R277-608 Reporting Burden and Fiscal Impact Estimate Form

R277. Education, Administration.

R277-608. Emergency Safety Interventions and Prohibition of Corporal Punishment.

R277-608-1. Authority~~[,]~~and Purpose~~[, and Oversight Category]~~.

(1) This rule is authorized by:

(a) Utah Constitution Article X, Section 3, which vests general control and supervision over public education in the Board;

(b) Subsection 53E-3-401(4), which allows the Board to make rules to execute the Board's duties and responsibilities under the Utah Constitution and state law; and

(c) Section 53G-8-301, which describes the instances when school employees may use reasonable and necessary physical restraint and seclusion, outlines the physical standards for seclusion rooms and prohibits the infliction of corporal punishment on a student in educational settings.

(2) The purpose of this rule is to:

(a) direct LEAs to have policies in place that prohibit corporal punishment consistent with the law; and

(b) outline the required provision of an LEA's written policy regarding the development, implementation, and monitoring of emergency safety interventions in all schools and for all students within each LEA's jurisdiction.

(c) outline safety standards and compliance plan verification for seclusion rooms.

~~[(3) This Rule R277-608 is categorized as Category 3 as described in Rule R277-111.]~~

R277-608-2. Definitions.

(1)(a) "Chemical restraint" means the use of medication administered to a student, including medications prescribed by the student's physician or other qualified health professional, on an as-needed basis for the sole purpose of involuntarily limiting the student's freedom of movement.

(b) Chemical restraints are prohibited by the Board.

(2) "Comprehensive Emergency Safety Intervention Training" means a training required for key identified school employees that has the components described in Subsection R277-608-4(4).

(3) "Corporal punishment" means the same as defined in Section 53G-8-301.

(4) "Disengagement strategies" means strategies for safely and effectively releasing or separating oneself or others from a situation, person, or engagement to protect oneself or others.

(5)(a) "Emergency safety intervention" or "ESI" means the same as defined in Section 53G-8-301.

(b) An emergency safety intervention may not be used for disciplinary purposes.

(6) "Emergency safety intervention committee" or "ESI committee" means an emergency safety intervention committee as described in Section R277-608-6.

(7) "Functional behavior assessment" or "FBA" is a systematic process used to understand the function and purpose of a student's specific, interfering behavior and factors that contribute to the behavior's occurrence and nonoccurrence for developing effective positive behavioral interventions, supports, and other strategies to mitigate or eliminate the interfering behavior.

(8) "Foundational Behavior Support Training" means a training required for all school employees who supervise students, or may be asked to assist in managing a student's behavior that has the components described in Subsection R277-608-4(1).

(9) "Immediate danger" or "Immediate and significant threat" means:

(a) the imminent risk of physical violence toward self or others, or other physical behaviors which are likely to cause imminent risk of substantial or serious bodily injury.

(10) "Local Education Agency (LEA)" includes, for purposes of this rule, the Utah Schools for the Deaf and the Blind.

(11)(a) "Mechanical restraint" means the use of any device or equipment to restrict a student's freedom of movement.

(b) Mechanical restraints are prohibited except for protective and stabilizing restraints as prescribed by an appropriate medical or related services professional,

restraints required by law, including seatbelts or any other safety equipment when used to secure students during transportation, and any device used by a law enforcement officer in carrying out law enforcement duties.

(12) "Physical escort" has the same meaning as defined in Section 53G-8-301.

(13) "Physical restraint" has the same meaning as defined in Section 53G-8-301.

(14) "Push panel" means a panel or plate in a seclusion room that is flush with the interior of a door that allows a door to be pushed open from the interior without requiring a door knob or door handle.

(15) "School employee" means:

(a) a school teacher;

(b) a school staff member;

(c) a school administrator; or

(d) any other person employed, directly or indirectly, by an LEA.

(e) "School Employee" does not mean a law enforcement officer.

~~[(15)]~~(16) "Seclusion" means the same as defined in Section 53G-8-301.

~~[(16)]~~(17) "Serious bodily injury" has the same meaning as defined in Subsection 76-1-101.5(17).

~~[(17)]~~(18) "Substantial bodily injury" has the same meaning as defined in Subsection 76-1-101.5(18).

R277-608-3. LEA Policies and Procedures for the Use of Emergency Safety Interventions.

(1) Policies established by LEAs for the use of ESI for all students shall include:

(a) a statement that key identified school employees may use reasonable and necessary physical restraint only in self-defense, or when otherwise appropriate to the circumstances outlined in Subsection 53G-8-301(4);

(b) an ESI may not be used in place of appropriate less restrictive interventions;

(c) a definition of a key identified school employee for whom the ongoing comprehensive ESI training outlined in Subsection R277-608-4(3) will be provided;

(d) procedures to be followed when using an ESI according to the implementation requirements in Section 53G-8-301 and Section R277-608-5, including:

(i) continual observation through a vision panel as described in Subsection 53G-8-301(14)(f)(iii) ~~[R277-608-5(12)(d)]~~;

(ii) release criteria;

(iii) documentation;

(iv) notification to administration ~~[outlined in Section R277-608-5]~~;

(v) notification to a student's parent ~~[consistent with in Section R277-608-5]~~;

(vi) debriefing;

(vii) reporting; ~~[and]~~

(viii) post-ESI assessment and monitoring of students; and

(e) all other requirements related to use of seclusion consistent with Subsection 53G-8-301(10).

(2) An LEA ESI policy shall include whether the LEA allows individual schools to ~~[designate an enclosed area for the sole purpose of]~~ build seclusion rooms.

(a) if an LEA allows individual schools to ~~[designate an enclosed area for the sole purpose of]~~ build seclusion rooms, the policy shall ~~[additionally]~~ outline:

(i) requirements and prohibitions for the ~~[designated enclosed area]~~ seclusion room in accordance with Subsection 53G-8-301(14), ~~[Rules]~~ Sections R392-200 and R710-4; and

(ii) a written procedure outlining the approval process including:

(A) requirements that a school proposing to ~~[designate an enclosed area]~~ build a seclusion room include in their proposal a written description outlining the data and reasoning for building a seclusion room ~~[designating an enclosed area]~~;

(B) approval by the LEA governing board in consultation with the LEA's ESI committee; ~~[and]~~

(C) requirements for the ~~[around a]~~ written notification provided to parents within the school community before ~~[the designation of an enclosed area]~~ building a seclusion room; ~~[.]~~

_____ (D) requirements to report to the Superintendent that a new seclusion room has been built, its location and that it complies with the physical standards described in Subsection 53G-8-301(14) by the end of the school year in which the construction is complete: and

_____ (E) requirements to report to the Superintendent if a seclusion room is no longer in use by the end of the school year in which the room is no longer being used.

(3) Policies and procedures for the use of an ESI for a student should be consistent with evidence- and research-based practices including the prohibition of:

(a) Physical restraint, subject to the requirements of Section R277-608-5, except when the physical restraint is allowed as described in Section 53G-8-301;

(b) prone, or face-down, physical restraint;

(c) supine, or face-up, physical restraint;

(d) physical restraint that obstructs the airway of a student or adversely affects a student's primary mode of communication;

(e) mechanical restraint, except as consistent with Section R277-608-2;

(f) chemical restraint[, ~~except as consistent with Section R277-608-2~~];

(g) seclusion, subject to the requirements of Section R277-608-5 and Subsection 53G-8-301(10)(a)(iii), except when a student presents an immediate danger [of serious physical harm] to self or others;

(h) for a student with a disability, ESIs written into a student's individualized education program (IEP), as a planned intervention, unless:

(i) school personnel, the family, and the IEP team [~~agree~~]have documented less restrictive means have been attempted;

(ii) a FBA has been conducted;[~~and~~]

(iii) a positive behavior intervention, based on data analysis has been written into the plan and implemented[-]; and

(iv) the intervention is only used when there is an immediate danger to self or others.

145 ~~[(j)]~~(i) other dangerous practices as defined by the LEA, including dangerous
146 practices outlined in the Least Restrictive Behavioral Interventions (LRBI) Technical
147 Assistance manual incorporated by reference in Section R277-609-7.

148 (4) An LEA shall have in place, as part of its LEA special education policies,
149 procedures, and practices, which include:

150 (a) criteria, and steps for using ESI with students with disabilities consistent with
151 state and federal law.

152
153 **R277-608-4. Emergency Safety Interventions (ESI) Training Requirements.**

154 (1) ~~All~~~~Beginning with the 2025-2026 school year, all~~ school employees who
155 supervise students, or who may be asked to assist in managing a student's behavior,
156 shall receive foundational behavior support training, which shall include:

157 (a) behavioral or emotional crisis management including de-escalation strategies
158 consistent with the ~~[(LRBI)]~~ manual incorporated by reference into Section R277-609-
159 7; and

160 (b) LEA policies related to ESI.

161 (2) The foundational behavior support training, described in Subsection R277-
162 608-4(1), must be completed within two months or 30 days if working directly with a
163 student with disabilities, of employment and ~~bi-annually~~every other year, thereafter.

164 (3) Key identified school employees shall receive comprehensive ESI training
165 that is research- and evidence-based in addition to the foundational behavior support
166 training.

167 (4) The ~~[(C)]~~comprehensive ESI training shall include:

168 (a) disengagement strategies;

169 (b) the appropriate, safe, and effective use of ESI; and

170 (c) documentation of ESI.

171 (5) The comprehensive ESI training shall be completed before a school
172 employee may use an ESI with a student and annually, thereafter.

R277-608-5. Implementation of Physical Restraint and Seclusion.

(1) Physical restraint may only be used when a student presents an immediate danger to self or others and when no other safe or effective intervention is available.

(2) A school employee may not use physical restraint as a means of discipline or punishment.

(3) When used consistently with the LEA policy under Section R277-608-3:

(a) a physical restraint must be immediately terminated when:

(i) A student is no longer an immediate danger to self or others; or

(ii) A student is in severe distress; and

(b) the use of physical restraint shall be for the minimum time necessary to ensure safety, as reasonably understood by the school employee, and a release criteria, as outlined in LEA policies, must be implemented.

(4) A school employee may not use physical restraint on a student for more than the shortest of the following before stopping, releasing, and reassessing the intervention used:

(a) the amount of time described in the LEA's comprehensive ESI training program;

(b) 30 minutes; or

(c) when law enforcement intervenes.

(5) If a school employee physically restrains a student, the school or the school employee shall provide notice immediately, and ~~[may not exceed]~~ no later than 15 minutes after use, to:

~~[(a) The notice described in Subsection R277-608-5(5) shall be provided to:]~~

~~[(i)]~~ (a) the student's parent; and

~~[(ii)]~~ (b) school administration.

(6) If a school employee physically restrains a student, the school or the school employee shall provide documentation of the physical restraint to the LEA's ESI committee described in Section R277-608-6, and the student's parent.

(7) A notice described in Subsection (5) shall be documented within the student information systems (SIS) records.

(8) Seclusion may only be used when a student presents an immediate danger to self or others and when no other safe or effective intervention is available.

(9) A school employee may not use seclusion:

(a) as a behavioral intervention;

(b) as a disciplinary practice;

(c) for coercion, retaliation, or humiliation;

(d) due to inadequate staffing; or

(e) for the staff member's convenience.

(10) A school employee may not place a student in seclusion for more than 30 minutes, per occurrence except as consistent with Subsection 53G-8-301(10)(e).

(11) If a school employee uses seclusion, the school employee shall:

(a) use the minimum time necessary to ensure safety, as reasonably understood by the school employee;

(b) use release criteria outlined in LEA policies;

(c) ensure that any door remains unlocked consistent with the fire and public safety requirements described in Rules R392-200 and R710-4;

(d) ensure the student is observed at all times by personnel who have received the comprehensive ESI training; and

(e) have used other less restrictive interventions before the use of seclusion.

(12) If a school employee uses seclusion in a seclusion room, this room must meet the physical standards outlined in Subsection 53G-8-301(14).

[(12)](13) If a student is placed in seclusion, the school or the school employee shall provide notice immediately, and ~~[not to exceed]~~ no later than 15 minutes after use, to:

(a) the student's parent; and

(b) school administration.

(13) If a student is placed in seclusion, the school employee shall provide documentation of the seclusion to the LEA's ESI committee described in Section R277-608-6, and the student's parents.

(14) A notice described in Subsection (12) shall be documented within the ~~student information systems (SIS)~~ SIS records.

(15) If a school employee uses any ESI, a school shall provide a parent with a copy of any notes or additional documentation, including a description of the physical space in which the seclusion occurred or the type of physical restraint that was used, taken during the use of the ESI upon request of the student's parent.

(16) Within 48 hours of the school using an ESI with a student, a school shall provide notice to a parent that the parent may request a copy of any notes or additional documentation taken during the use of the ESI.

(17) A parent may request a time to meet with school staff and administration to discuss the use of an ESI.

R277-608-6. LEA Emergency Safety Intervention (ESI) Committee.

(1) An LEA shall establish an ESI Committee.

(2) An LEA's ESI Committee shall:

(a) include:

(i) at least one administrator;

(ii) at least one licensed educational professional with behavior support training and knowledge in both state law and LEA discipline policies related to ESIs;

(iii) at least one parent or guardian of a student enrolled in the LEA, appointed by the LEA; and

(iv) at least one other licensed educator;

(b) meet often enough to monitor the use of ESI in the LEA;

(c) determine and recommend professional learning needs;

(d) shall develop policies for processes to resolve concerns regarding the use of ESIs; and

(e) ensure that each emergency incident where a school employee uses an ESI is documented, in accordance with Subsection 53G-8-301(11) in the LEA's ~~[student information system]~~ SIS and reported annually to the Superintendent.

R277-608-7. Physical Standards for Seclusion Rooms.

(1) All seclusion rooms built after July 1, 2026 shall be built:

(a) to meet the physical standards for seclusion rooms outlined in Utah Code 53G-8-301(14); and

(b) with a push panel as defined in R277-608-2(14).

(2) If an LEA has a seclusion room that was built prior to July 1, 2026, the LEA has until July 1, 2032 to retrofit the seclusion room to meet the physical standards outlined in Utah Code 53G-8-301(14) and the additional standards outlined in this section.

(3) An LEA must immediately ensure a seclusion room meets all physical standards that can be reasonably implemented without major construction.

R277-608-8. Audio/Video Retention Requirements for Seclusion Rooms.

(1) LEAs shall retain audio and video records of each use of a seclusion room in accordance with the record retention schedule posted on the Division of Archives and Records Services (DARS) website.

R277-608-9. LEA Compliance with Physical Standards for Seclusion Rooms

(1) Each LEA that operates or plans to construct a seclusion room must report to the Superintendent by December 31, 2026.

(2) For any seclusion rooms the LEA determines are out of compliance with the physical standards outlined in Utah Code 53G-8-301(14) and R277-608-7, the LEA must submit a compliance plan to the Superintendent, including:

(a) the location of the seclusion room;

(b) each physical standard that is out of compliance;

(c) how the LEA will come into compliance with each physical standard;

_____ (d) the timeframe to get into compliance not to exceed July 1, 2032;
_____ (e) how the LEA will track progress with compliance efforts; and
_____ (f) the LEA employee who will be responsible for reporting progress to the
Superintendent.

_____ (3) An LEA must report progress to the Superintendent annually by June 30 until
compliance is achieved.

_____ (4) If a violation of the physical standards of a seclusion room is reported to the
LEA, the LEA will report the violation and the corrective action plan to the
Superintendent within 30 business days of receipt of the report.

_____ (5) Upon receiving an LEA's corrective action plan, the Superintendent shall
monitor implementation of the plan in accordance with Section R277-608-7 and
Subsections R277-608-9(2) and (3).

_____ (6) If an LEA fails to develop a corrective action plan or fails to bring a seclusion
room into compliance with the physical standards of Section R277-608-7 by the
applicable timeframes established in Section R277-608-7 and Subsection R277-608-
9(3), the Superintendent shall initiate further action in accordance with Rule R277-114.

R277-608-10. Requirements for Safety Inspections for Seclusion Rooms.

_____ (1) An LEA must inspect each seclusion room built within its schools at least
annually.

_____ (2) Inspections shall evaluate compliance with all physical standards outlined in
Utah Code 53G-8-301(14) and Section R277-608-7 of this rule.

_____ (3) An LEA will provide an assurance to the Superintendent annually through
the assurances document that:

_____ (a) a safety inspection has occurred; and

_____ (b) whether the seclusion room was in compliance with all physical
standards outlined in Subsection 53G-8-301(14) and Section R277-608-7 of this rule.

(4) If an LEA fails to complete safety inspections or fails to meet the physical standards by July 1, 2032, the Superintendent will follow the processes for violations outlined in Section R277-608-13(5).

R277-608-[7]11. LEA Prohibition of Corporal Punishment Policy.

An LEA policy shall include:

- (1) a prohibition of corporal punishment consistent with the law;
- (2) appropriate sanctions for LEA employees who use corporal punishment; and
- (3) appeal procedures for LEA employees disciplined for a violation of the LEA's policy.

R277-608-[8]12. LEA Responsibilities and Reporting.

(1) An LEA shall have procedures for the collection, maintenance, and periodic review of documents or records of the use of ESIs at schools within the LEA.

(2) An LEA shall provide documentation, in accordance with Subsection 53G-8-301(11) of any school, program, or LEA's use of ESI to the Superintendent annually.

R277-608-[9]13. Superintendent Responsibilities.

(1) The Superintendent shall define the procedures for the collection, maintenance, and review of records described in Subsection R277-608-8(1).

(2) The Superintendent shall periodically review:

- (a) All ESI data submitted to the Superintendent;
 - (b) All LEA special education behavior intervention, procedures, and policies;
- and

(c) ESI data as related to students with disabilities who are eligible or being evaluated for special education services in accordance with ~~[Utah's Program Improvement and Planning System (UPIPS)]~~ Section R277-750.

(3) The Superintendent shall provide technical assistance to LEAs in developing and implementing policies and training employees in the appropriate use of ESI to the extent of resources available.

(4) The Superintendent shall monitor LEA compliance with the physical standard requirements for seclusion rooms in a manner determined by the Superintendent.

~~[(4)]~~(5) The Superintendent shall include data collected under~~[-information in]~~ Subsection 53G-8-301(3)(a) in the State Superintendent's Annual Report described in Section 53E-1-203.

~~[(5)]~~(6) Violations of law and this Board rule will be handled through the appropriate process as outlined in Rule R277-114, Rule R277-123, Rule R277-211 or the Utah Special Education Rules incorporated by reference into Rule R277-750.

(7) The Superintendent shall take corrective action against an LEA that:

(a) is nonresponsive after receiving a notice of noncompliance; or

(b) has an ESI committee that has not created a plan or resolved the issues of noncompliance.

KEY: emergency safety interventions, corporal punishment

Date of Last Change: November 21, 2025

Notice of Continuation: June 28, 2022

Authorizing, and Implemented or Interpreted Law: Art X Sec 3; 53E-3-401(4); 53G-8-301

Utah State Board of Education

Reporting Burden and Fiscal Impact Estimate

R277-608 – Emergency Safety Interventions and Prohibition of Corporal Punishment (Amendment)

1. Reporting Burden for LEAs

This rule change does not add any reports for LEAs. Reporting changes were made with SB181 from the 2026 session.

2. Estimated Fiscal Impact on USBE

This rule change is not estimated to have measurable fiscal impacts on USBE.

3. Estimated Fiscal Impact on LEAs

This rule change is not estimated to have fiscal impacts on LEAs. The fiscal note for SB181 indicated:

Enactment of this legislation could increase LEA costs by up to \$9,000,000 one-time in FY 2027 from unrestricted funds for construction and technology expenses related to seclusion room upgrades. Enactment of this legislation could also cost LEAs an estimated \$200 one-time in FY 2027 per seclusion room for mandatory reporting on seclusion room status. In aggregate, these LEA costs are estimated to be \$200,000 one-time in FY 2027 from LEA unrestricted funds. (These costs are due to the bill passage and not as a direct result of this rule)

Author: Sam Urie

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: Audit Committee Statutory Change Requests

Agenda item type:

Action Item

Recommended Action:

That the Committee recommend that staff work with legislators on potential amendments to the Utah Code as proposed in the areas listed below and forward the recommendation to the Board.

- Trespass from School Property
- Sex Offenders at School Sponsored Activities
- LEA Internal Audit

Purpose of Memo:

Recommended through Audit Committee

Background:

In the May 2026 Audit Committee meeting, the Internal Audit Department (IAD) sought feedback from the Audit Committee regarding if statutory change requests should be completed for several areas of risk identified by the IAD. Responsive to Audit Committee direction, IAD provided statutory change request forms at the June 2026 Audit Committee meeting, which the Committee then discussed and passed the following motion:

That the Committee recommend the legislative session requests listed below be sent to Board Leadership for inclusion on a standing committee agenda in August 2026:

- *Trespass from School Property*
- *Sex Offenders at School Sponsored Activities*
- *LEA Internal Audit*

The forms associated with the statutory change requests are provided for further consideration of the Law and Licensing Committee.

Contact:

Name: Rod Hall
Title: Audit Committee Chair
Phone: 385-295-7880
Email: rod.hall@schools.utah.gov

Debbie Davis
Chief Audit Executive
801-538-7639
debbie.davis@schools.utah.gov

Attachments:

1. 1 Statutory Change Request - Trespass on School Property
2. 2 Statutory Change Request -Sex Offenders at School Sponsored Activities
3. 3 Statutory Change Request - LEA Internal Audit

USBE Legislative Request Form

(Policy, Funding, & Efficiency / Reductions)

2027 General Session

Instructions: Use this form to submit requests for statutory changes, new financial resources, or proposed efficiencies (program cuts/reductions). Please complete **Section 1 and 2**, and then complete **Section 3 and/or 4** depending on the nature of your request.

SECTION 1: THE BOTTOM LINE

Request Title: Parameters for Criminal Trespass on School Property

USBE Lead Point of Contact:

- Name: Debbie Davis, Chief Audit Executive
- Email: Debbie.davis@schools.utah.gov
- USBE Section: Internal Audit Department

Deputy Superintendent Reviewer: NA

(Note: You must review this request with your Deputy Superintendent prior to submission).

Nature of Request (Select all that apply):

☒ **Policy Change:** Creating, amending, or repealing Utah State Code.
(Complete Section 4)

☐ **New/Increased Funding:** Seeking new financial resources.
(Complete Section 3)

☐ **Efficiency / Reduction:** Proposing the elimination or reduction of a program, mandate, or funding stream. (Complete Section 3 and/or 4)

Purpose Statement (BLUF - Bottom Line Up Front):

In 1-2 sentences, state the exact action you are requesting and the anticipated outcome. (e.g., "We are requesting a statutory amendment and \$2M in ongoing funding to create three Mobile Advanced Manufacturing Labs for rural LEAs.")

We are requesting an amendment to statute to include specific parameters if a school official gives notice to a parent against entry to/remaining on school property (i.e., criminal trespass).

SECTION 2: THE BUSINESS CASE

(Required for all requests)

The Problem:

Describe the specific issue, mandate, or inefficiency this request addresses.

Concerns have been received on the Public Education Hotline regarding a school official notifying a parent/guardian that they cannot enter or remain on school property (i.e., criminal trespass as per Utah Code [53G-8-603](#)). Current Utah Code does not include specific requirements associated with the trespass notification, simply that it is a "personal communication to the person by a school official or an individual with apparent authority to act for a school official." There are no requirements about documentation, timelines, authority, or appeals.

A criminal trespass may prevent a parent or guardian from having access to their child in circumstances when the child is sick or if there is an incident; it may also prohibit a parent or guardian from attending significant events specific to their child (e.g., awards ceremony, field trip, prom, athletic/activity event). 53E-2-201 underscores the importance of parents in the public education system, stating that:

(2) In the implementation of all policies, programs, and responsibilities adopted in accordance with this public education code, the Legislature, the state board, local school boards, and charter school governing boards shall:

(a) respect, protect, and further the interests of parents in their children's public education; and

(b) promote and encourage full and active participation and involvement of parents at all public schools.

Thus, the issue is how to balance parental rights with safety. Also considering

access to public property is different than access to private property.

Other Utah Code specific to criminal trespass is found in [76-6-206](#).

Projected Results:

If approved, what is the measurable outcome in the K-12 system?

(Please list 1-2 specific performance metrics. Link to existing performance measures will be added here).

It is less about the project result and more about risk if there is not action; however, the following would likely result:

- Increased parent satisfaction with a school/school personnel.
- Reduction of state and local hotline concerns or time spent per hotline concern.

Consequence of Inaction:

Factually state the impact if this request is NOT approved or funded.

- Continued lack of transparency and accountability related to trespass and the inevitable implications related to parental rights and their students' public education.
- Increased risk of legal liability to the state of Utah if a trespass is deemed retaliation or if a parent cannot access their child.
- Reduced enrollment in the public education system.
- Increased number of hotline concerns, which reduces time available for state and local personnel to address other critical tasks and functions (e.g., proficiency, evaluations, oversight).

Evidence & Data:

Provide the source, research, or analysis that proves this is the right approach (e.g., cost-benefit analysis, program evaluation, pilot program results).

The public education system is a statewide system and this problem requires a statewide solution for consistency and transparency. Statewide solutions generally come in the form of statute or rulemaking as directed by statute (53E-3-401(4)). Statute currently does not direct rulemaking by USBE specific to criminal trespass on school property; thus, amending Utah Code is the right approach.

SECTION 3: FUNDING, OFFSETS, & EFFICIENCIES – **Not Applicable**

(Complete only if your request involves financial resources or proposing budget cuts)

Financial Ask:

(If a field does not apply, enter \$0).

- **FY 2027 Ongoing Requested:** \$_____
- **FY 2027 One-Time Requested:** \$_____
- **Proposed Offsets / Savings:** \$_____ *(Amount saved by cutting redundancies or reallocating existing funds)*

The Offset Strategy:

If you are requesting new funds, what duplicate programs, ineffective streams, or outdated mandates could be cut or reallocated to fund this? Please name the specific programs/funds.

[Type response here]

Future Obligations:

Does this request create multi-year scale-up costs or ongoing maintenance obligations?

[] Yes

[] No

If yes, please describe: _____

Itemized Budget Request:

(Please detail how the funding will be utilized across the following categories).

Cost Category	FY 2027 (Current)	FY 2028
TOTAL REQUESTED	\$	\$

New USBE FTEs Requested: _____ (Enter number of new FTEs)

SECTION 4: POLICY & STATUTE

(Complete only if your request involves changing or eliminating Utah State Code)

Code Sections Affected: *(List specific state code references, or write "New Code")*

[53G-8-603](#)

Suggested Legislative Solution: *What specific language needs to be added, amended, or repealed?*

Amend Utah Code to include parameters for the “personal communication” that is given to trespass a parent or guardian from school property to ensure parent rights are considered and to ensure the trespass is not retaliation. Parameters could include:

- Clarification of reasons to trespass parents/guardians vs reasons to trespass others
- Official documentation of trespass as parent/guardian contact information is available, including:
 - Basis of trespass
 - Timeline of trespass
 - Appeal of trespass
- Review and approval of trespass by LEA governing board

Safeguards: *Does this policy change or program reduction create unintended consequences for specific geographic areas or student populations? How will those be mitigated?*

No unintended consequences for specific geographic areas or student populations.

USBE Legislative Request Form

(Policy, Funding, & Efficiency / Reductions)

2027 General Session

Instructions: Use this form to submit requests for statutory changes, new financial resources, or proposed efficiencies (program cuts/reductions).

Please complete **Section 1 and 2**, and then complete **Section 3 and/or 4** depending on the nature of your request.

SECTION 1: THE BOTTOM LINE

Request Title: Parameters for Sex Offenders Being on School Property or Attending School Sponsored Activities

USBE Lead Point of Contact:

- Name: Debbie Davis, Chief Audit Executive
- Email: Debbie.davis@schools.utah.gov
- USBE Section: Internal Audit

Deputy Superintendent Reviewer: NA

(Note: You must review this request with your Deputy Superintendent prior to submission).

Nature of Request (Select all that apply):

☒ **Policy Change:** Creating, amending, or repealing Utah State Code.
(Complete Section 4)

☐ **New/Increased Funding:** Seeking new financial resources.
(Complete Section 3)

☐ **Efficiency / Reduction:** Proposing the elimination or reduction of a program, mandate, or funding stream. *(Complete Section 3 and/or 4)*

Purpose Statement (BLUF - Bottom Line Up Front):

In 1-2 sentences, state the exact action you are requesting and the anticipated outcome. (e.g., "We are requesting a statutory amendment and \$2M in ongoing funding to create three Mobile Advanced Manufacturing Labs for rural LEAs.")

We are requesting an amendment to statute to include specific language with parameters for when a sex offender can be on school property or attend a school sponsored activity.

SECTION 2: THE BUSINESS CASE

(Required for all requests)

The Problem:

Describe the specific issue, mandate, or inefficiency this request addresses.

Concerns have been received on the Public Education Hotline, and have been in the news, regarding a sex offender who is related to or a guest of an LEA employee being at a school or attending school sponsored activities that are not held at a public school, including overnight activities. For example see: <https://kutv.com/news/education/parents-question-vetting-after-reported-sex-offender-joined-highland-high-cheer-trip>

Current Utah Code states:

53-29-306(3) A sex offender who has committed a registrable offense against an individual younger than 18 years old may not:

(a) be in a protected area except:

(i) when the sex offender must be in a protected area to perform the sex offender's parental responsibilities;

(ii) (A) when the protected area is a public or private primary or secondary school; and

(B) the school is open and being used for a public activity other than a school-related function that involves a minor;

53-29-306(1) (c) (i) "Protected area" means the premises occupied by:

(C) a public or private primary or secondary school that is not on the grounds of a correctional facility;

Utah Code does not address if a protected area includes a school sponsored activity that is not at the school (e.g., athletic events/competitions, activities, field trips) and particularly overnight activities.

Projected Results:

If approved, what is the measurable outcome in the K-12 system?

(Please list 1-2 specific performance metrics. Link to existing performance measures will be added here).

It is less about the project result and more about risk if there is not action; however, the following would likely result:

- Increased parent/taxpayer satisfaction with a school/school personnel.
- Reduction of state and local hotline concerns or time spent per hotline concern.

Consequence of Inaction:

Factually state the impact if this request is NOT approved or funded.

- Increased risk of legal liability to the state of Utah.
- Reduced enrollment in the public education system.

Evidence & Data:

Provide the source, research, or analysis that proves this is the right approach (e.g., cost-benefit analysis, program evaluation, pilot program results).

The public education system is a statewide system, and this problem requires a statewide solution for consistency and transparency. Statewide solutions generally come in the form of statute or rulemaking as directed by statute (53E-3-401(4)). Sex offender registration requirements and the definition of “protected area” are currently in statute; therefore, an amendment to statute is the right approach.

SECTION 3: FUNDING, OFFSETS, & EFFICIENCIES – Not Applicable

(Complete only if your request involves financial resources or proposing budget cuts)

Financial Ask:

(If a field does not apply, enter \$0).

- **FY 2027 Ongoing Requested:** \$_____
- **FY 2027 One-Time Requested:** \$_____
- **Proposed Offsets / Savings:** \$_____ *(Amount saved by cutting redundancies or reallocating existing funds)*

The Offset Strategy:

If you are requesting new funds, what duplicate programs, ineffective streams, or outdated mandates could be cut or reallocated to fund this? Please name the specific programs/funds.

[Type response here]

Future Obligations:

Does this request create multi-year scale-up costs or ongoing maintenance obligations?

[] Yes

[] No

If yes, please describe: _____

Itemized Budget Request:

(Please detail how the funding will be utilized across the following categories).

Cost Category	FY 2027 (Current)	FY 2028
TOTAL REQUESTED	\$	\$

New USBE FTEs Requested: _____ (Enter number of new FTEs)

SECTION 4: POLICY & STATUTE

(Complete only if your request involves changing or eliminating Utah State Code)

Code Sections Affected: *(List specific state code references, or write "New Code")*

[53-29-306](#) Sex Offender Restrictions

Other potential Code Sections that may be considered: [53-29-307](#), [53G-11-402](#), [53G-11-405](#)

Suggested Legislative Solution: *What specific language needs to be added, amended, or repealed?*

“Protected area” as defined in 53-29-306.

Consider modifying the definition of “protected area” to include any area, where school-sponsored activities are taking place inclusive of only elementary or secondary students and school personnel.

Alternatively, consider including a definition of “Protected activities” to acknowledge the many activities that are not held at a “protected area” where there are minors supervised by (i.e., the responsibility of) employees of the public education system. To protect the rights of sex offenders, the definition would likely need to include that the location is rented or made available only for the school-sponsored activity (i.e., it is not open to the public).

For example, a school-sponsored activity may take place in a museum. If the school reserves the museum exclusively for the school activity, the reserved museum would be considered a protected area or activity and a sex offender may

not be present. However, if the school did not reserve the museum and it is open to the public as well as the school-sponsored activity, the public museum is not considered a protected area or activity and a sex offender could be present.

An additional designation that a sex offender could not be present could exist regarding an overnight or out-of-state school sponsored activity, as those activities have higher inherent risk of safety concerns.

Safeguards: *Does this policy change or program reduction create unintended consequences for specific geographic areas or student populations? How will those be mitigated?*

No unintended consequences for specific geographic areas or student populations.

USBE Legislative Request Form

(Policy, Funding, & Efficiency / Reductions)

2027 General Session

Instructions: Use this form to submit requests for statutory changes, new financial resources, or proposed efficiencies (program cuts/reductions).

Please complete **Section 1 and 2**, and then complete **Section 3 and/or 4** depending on the nature of your request.

SECTION 1: THE BOTTOM LINE

Request Title: Amendments to the LEA Internal Audit Act

USBE Lead Point of Contact:

- Name: Debbie Davis, Chief Audit Executive
- Email: Debbie.davis@schools.utah.gov
- USBE Section: Internal Audit Department

Deputy Superintendent Reviewer: NA

(Note: You must review this request with your Deputy Superintendent prior to submission).

Nature of Request (Select all that apply):

☒ **Policy Change:** Creating, amending, or repealing Utah State Code.
(Complete Section 4)

☐ **New/Increased Funding:** Seeking new financial resources.
(Complete Section 3)

☐ **Efficiency / Reduction:** Proposing the elimination or reduction of a program, mandate, or funding stream. (Complete Section 3 and/or 4)

Purpose Statement (BLUF - Bottom Line Up Front):

In 1-2 sentences, state the exact action you are requesting and the anticipated outcome. (e.g., "We are requesting a statutory amendment and \$2M in ongoing funding to create three Mobile Advanced Manufacturing Labs for rural LEAs.")

We are requesting an amendment to statute to update language and clarify requirements of, and responsibilities for, internal audit programs and functions at local education agencies.

SECTION 2: THE BUSINESS CASE

(Required for all requests)

The Problem:

Describe the specific issue, mandate, or inefficiency this request addresses.

Auditor General Minchey recently called for “a new era in Utah government auditing”, noting that “Policymakers and leaders...need high-impact auditing that leads to meaningful improvements.” In support of this call, the Office of the Legislative Auditor General released the Best Practice Handbook: Maximizing the Value and Independence of Internal Audit.

Internal Audit has received some feedback from LEA governing board members regarding confusion with the current LEA internal audit requirements.

This request is an opportunity to provide clarity to LEA governing board members, LEA Audit Committee members, LEA administrators, and the public about LEA audit committee and internal audit programs, as well as to update an outdated reference to professional internal auditing standards.

Projected Results:

If approved, what is the measurable outcome in the K-12 system?

(Please list 1-2 specific performance metrics. Link to existing performance measures will be added here).

- Increased efficiency and effectiveness of LEA governing boards and LEA administration (particularly for LEAs with an internal audit program)

specific to audit/audit committee-related activities.

Consequence of Inaction:

Factually state the impact if this request is NOT approved or funded.

- Lack of clarity regarding roles and responsibilities associated with local education agencies' audit committees and internal audit programs.
- Increased risk of waste, abuse, fraud and performance issues (e.g., inefficiency, ineffectiveness) at local education agencies

Evidence & Data:

Provide the source, research, or analysis that proves this is the right approach (e.g., cost-benefit analysis, program evaluation, pilot program results).

The public education system is a statewide system and this issue requires a statewide solution for consistency, transparency, and efficiency. Statewide solutions generally come in the form of statute or rulemaking as directed by statute (53E-3-401(4)). Statute currently has not directed rulemaking by USBE specific to local education agency internal audit functions; thus amending statute is the right approach.

SECTION 3: FUNDING, OFFSETS, & EFFICIENCIES – Not Applicable

(Complete only if your request involves financial resources or proposing budget cuts)

Financial Ask:

(If a field does not apply, enter \$0).

- **FY 2027 Ongoing Requested:** \$_____
- **FY 2027 One-Time Requested:** \$_____
- **Proposed Offsets / Savings:** \$_____ *(Amount saved by cutting redundancies or reallocating existing funds)*

The Offset Strategy:

If you are requesting new funds, what duplicate programs, ineffective streams, or

outdated mandates could be cut or reallocated to fund this? Please name the specific programs/funds.

[Type response here]

Future Obligations:

Does this request create multi-year scale-up costs or ongoing maintenance obligations?

[] Yes

[] No

If yes, please describe: _____

Itemized Budget Request:

(Please detail how the funding will be utilized across the following categories).

Cost Category	FY 2027 (Current)	FY 2028
TOTAL REQUESTED	\$	\$

New USBE FTEs Requested: _____ (Enter number of new FTEs)

SECTION 4: POLICY & STATUTE

(Complete only if your request involves changing or eliminating Utah State Code)

Code Sections Affected: *(List specific state code references, or write "New Code")*

[53G-7-401 and 53G-7-402](#)

Suggested Legislative Solution: *What specific language needs to be added, amended, or repealed?*

53G-7-401(2) – change “Audit director” to “Chief Audit Executive” and change instances of use throughout this part (401 and 402) as well. This change signifies the importance of the position to everyone at the local education agency.

53G-7-401(5)(c)(i) – reference to International Standards for the Professional Practice of Internal Auditing should be updated to the Global Internal Audit Standards, which name change became effective January 2025. The same change should be made in the Utah Internal Audit Act (63I-5-102(9)(c)(i)).

53G-7-402(3)(b) – remove the option to contract for internal audit services, which essentially makes the internal audit function an external audit function. Additionally, when internal audit services are provided by an external party the LEA governing board and audit committee do not receive the full value of internal audit. For example, 1) the level of institutional knowledge is lacking, which makes it more difficult to “evaluate the effectiveness of the local education agency governance, risk management, internal controls and efficiency of operations”, 2) an annual risk assessment may not be completed, and 3) the board and audit committee do not typically receive the same level of independent technical assistance for audit committee meetings and when facilitating external audits.

For additional clarification specific to **items that should already be happening**, add the following sections (also see the OLAG Best Practice Manual for Internal Audit):

- Audit Committee – Duties and Powers
 - Move subsections (1) – (3) in the current 53G-7-402 to this section.
 - Add provisions similar to 63I-5-301(3) to this section
 - Add the following provisions:
 - The local school board or charter school governing board shall select an audit committee chair and vice chair who will prepare the audit committee agenda and materials, facilitate the audit committee meeting, and prepare and disseminate the audit committee meeting minutes to board members.
 - If the local governing board has appointed an internal audit director (chief audit executive), the director may help with these responsibilities.
 - Local education agency administrators and executives may be invited to attend audit committee meetings at the discretion of the audit committee chair and vice chair for appropriate and allowable agenda items.
- Internal Audit Director - Duties and Powers
 - Move subsections (4) – (7) in the current 53G-7-402 to this section.
 - Add provisions similar to 63I-5-401 to this section
 - Add that the Internal Audit Director (Chief Audit Executive) functions as the external audit liaison, including facilitating audit responses and audit response updates.

Safeguards: *Does this policy change or program reduction create unintended consequences for specific geographic areas or student populations? How will those be mitigated?*

No unintended consequences for specific geographic areas or student populations. Based on the parameters in Utah Code, the internal audit program is only currently required for the 14 largest school districts; which significantly mitigates any potential consequences for smaller districts and charter schools.

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: School Safety Dashboard

Agenda item type:

Action Item

Recommended Action:

That the Committee approve the proposed items for the school safety dashboard and forward to the full Board for approval.

Purpose of Memo:

Result of legislative action

Background:

Per [Utah Code Section 53G-6-806: Parent Portal](#), USBE is required to display school safety data by July 1, 2028. The School Safety Center has put together a series of recommendations to include in the legislatively mandated School Safety Dashboard. In December 2024, the Board approved \$1.5M for the School Safety Dashboard. In January, 2025, the School Security Task Force passed a motion to approve \$1.5M in matching funds from the General Grants appropriation in H.B. 84 (2024) for USBE to develop the School Safety Dashboard.

The School Safety Center has partnered with Safe Schools for Alex to create the School Safety Dashboard. USBE School Safety and Student Support staff spent 2 months working in specialized workgroups to create recommendations to share with the Board regarding the items to include in the school safety dashboard. Staff are now presenting the proposed items to the committee for approval.

Contact:

Name: Ashley Pistello	Rhett Larsen
Title: School Safety Center Specialist	School Safety Coordinator
Phone: 801-538-7728	801-538-7997
Email: ashley.pistello@schools.utah.gov	rhett.larsen@schools.utah.gov

Attachments:

1. School Safety Dashboard Workgroup Recommendations Worksheet - Chronic Absenteeism_FINAL_20260729
2. School Safety Dashboard Workgroup Recommendations Worksheet - ESIs_FINAL_20260729
3. School Safety Dashboard Workgroup Recommendations Worksheet - Student Discipline and Bullying_FINAL_20260729
4. School Safety Dashboard Workgroup Recommendations Worksheet - Law Enforcement Action_FINAL_20260729
5. School Safety Dashboard Workgroup Recommendations Worksheet - School Responsiveness_FINAL_20260729
6. School Safety Dashboard - Data Privacy Considerations



Utah State
Board of
Education

School
Safety
Center

SCHOOL SAFETY DASHBOARD WORKGROUP RECOMMENDATIONS WORKSHEET

WORKGROUP: CHRONIC ABSENTEEISM

July 2026

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PURPOSE OF SCHOOL SAFETY DASHBOARD

To design and implement a comprehensive School Safety Dashboard that ensures compliance with [Utah Code Section \(UCS\) 35G-6-806](#) and [UCS 53E-3-516](#). The dashboard will accurately display school safety data as identified in state code and other recommended information from workgroups, as voted upon by the Utah State Board of Education (USBE). All data displayed will protect student privacy and provide clear insights to support safe and equitable learning environments.

PURPOSE OF WORKGROUP

To identify data element(s) for recommendation to include in the School Safety Dashboard in the area of **Chronic Absenteeism** that are aligned with at least one of the following:

- [UCS 53E-3-516: School disciplinary and law enforcement action report](#)
- [USBE Strategic Plan](#)
- Other Code, Statute, or Rule: _____
- The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)

DATA ELEMENT(S) COLLECTION FOR RECOMMENDATION

CURRENTLY EXISTING

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
1	Type of school or learning environment	• UCS 53E-3-516 • USBE Strategic Plan • Other Code, Statute, or Rule: ○ R277-607 ○ R277-419 • The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)	• This will help inform the public which type of learning environment each LEA is • Will help parents differentiate between how attendance is calculated in brick-mortar schools vs other learning options • Will need a tool tip or information definition ○ Learner Validated - online school attendance (student has logged in and is participating) ○ Attendance validated - physically attending a brick and mortar ○ Hybrid - a school that has both

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
2	Chronically Absent Trends (once-a-year)	• UCS 53E-3-516: School disciplinary and law enforcement action report • USB E Strategic Plan • Other Code, Statute, or Rule: ○ R277-607 • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• A visual representation of the chronically absent number trends to visually represent chronic absenteeism in the school/LEA over time (trend line / line graph) • This data element already exists on the Data Gateway (for both LEA and school level) • Can currently be broken down by grade level, ELL, Special Ed, Economically Disadvantaged, Gender, Ethnic Group, and LEA type (District total and Charter total) • This is currently submitted by LEAs once a year after July 1st for the entire school year. This is a lagging data and the data is made public in October / November in the following school year (from the previous year).

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
3	Student Enrollment Number (once-a-year)	• UCS 53E-3-516: School disciplinary and law enforcement action report • USB E Strategic Plan • Other Code, Statute, or Rule: ◦ R277-419 • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Number of students that are officially enrolled in the school • Calculated by the Oct 1 counts, available by the end of Oct / beginning of Nov • Reported to USB E once a year at the beginning of the current school year • This data element is already available and exists on the USB E Data and Statistics / Reports page (Select Enrollment/Membership > Fall Enrollment by Grade Levels and Demographics) for both LEA and school enrollment.
4	Enrollment trends (once-a-year)	• UCS 53E-3-516: School disciplinary and law enforcement action report • USB E Strategic Plan • Other Code, Statute, or Rule: ◦ R277-419 • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• A visual representation of the enrollment number trends to visually represent enrollment declining or increasing (trend line / line graph) • This data element already exists on the Data Gateway as a dashboard for both LEA and school level • Can currently be broken down by grade level, ELL, Special Ed, Economically Disadvantaged. Also, are broken down to individual ethnicity group, sex, refugee, homeless, military, preschool, and LEA type in the excel online reports.

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
5	Attendance Rate (once-a-year)	• UCS 53E-3-516: School disciplinary and law enforcement action report • USBE Strategic Plan • Other Code, Statute, or Rule: _____ • The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)	• Average Days of Attendance divided by Average Days of Membership ◦ R277-419: "Membership" means a public school student is on the current roll of a public school class or public school as of a given date. • This data element is already available and exists on the USBE Data and Statistics / Reports page (Select Enrollment/Membership > Attendance) for both LEA and school. • Calculated once a year after the school year ends • Is a lagging data indicator (showing for the previous year) • Schools can report up to three times a year, but many do not report until July. This makes the July data the most accurate. (Note: Data and stats would need to come up with processes to verify the accuracy of the data before the July submission if we want to display it more frequently, but the safest and cleanest data would be once a year, after the July submission)

NOT EXISTING - WISH LIST ITEMS

The following items would need a statute and/or rule change for USBE to collect this data from LEAs

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
6	Daily / Live Chronic Absenteeism rates	• UCS 53E-3-516: School disciplinary and law enforcement action report • USBE Strategic Plan • Other Code, Statute, or Rule: _____ • The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)	• Actual number of students who have attended less than 10% of school days ◦ Chronic absenteeism includes both excused and unexcused absences • Calculated daily • Currently those that have elected to use Panorama already have access to this data • Would need clear attendance codes to capture excused vs unexcused absences. Examples are: ◦ E = excused absence ◦ U = unexcused absence ◦ Do not need information beyond this such as medical, etc., we would only need the E and U. ◦ At the June 4, 2026 board meeting, the Board approved clear definitions that apply to all LEAs regarding what counts as an “absence” (how many periods in a day count). The definition is missing more than 50% of the day. This will take some time to implement into the attendance practice of all schools. ◦ Start calculating after the first 10 days of school

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
7	Student Attendance Rate (Percentage)	• UCS 53E-3-516: School disciplinary and law enforcement action report • USB E Strategic Plan • Other Code, Statute, or Rule: _____ • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Percentages of students attending school, calculated in real time (nightly) ◦ Calculated with the number of students that actually attended each day divided by number of students enrolled (nightly upload) • Would need a statute change and requirement for USB E to have this data • Currently those that have elected to use Panorama already have access to this data • Would need clear attendance codes to capture excused vs unexcused absences. Examples are: ◦ E = excused absence ◦ U = unexcused absence ◦ Do not need information beyond this such as medical, etc., we would only need the E and U. Example: Daily percentage: Day 1: 10 students attended of 100 enrolled = 10% attendance rate

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
8	Average Daily Attendance (ADA) Rate	• UCS 53E-3-516: School disciplinary and law enforcement action report • USB E Strategic Plan • Other Code, Statute, or Rule: _____ • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Rolling percentage of students attended divided by the number of students enrolled (calculated daily or weekly for display) • Calculated over the school year, out of total possible number of school days (calculates nightly) • added filters for LEA, school, grade, gender, and other characteristics Example: Daily attendance: Day 1: 10 students attended of 100 enrolled = 10% attendance rate Average daily attendance = 30% Daily attendance of: Day 1: 20% attendance rate Day 2: 30% attendance rate Day 3: 40% attendance rate

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
9	Attendance trends	• UCS 53E-3-516: School disciplinary and law enforcement action report • USBE Strategic Plan • Other Code, Statute, or Rule: _____ • The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)	• Trend line / line graph • Shows attendance trending up or down at certain points of the year, calculated from the ADA rate ○ Example: displaying trend lines so we can see what times of year that students are typically absent more than at other times ○ Ability to compare year to year as well

ADDITIONAL THOUGHTS TO SHARE

- The Board could consider requiring additional data submission / validation dates for attendance data, since some pieces are only required at the end of the year:
 - Ex: attendance data is most accurate in July, even though it can be collected optionally from LEAs three times a year



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SCHOOL SAFETY DASHBOARD WORKGROUP RECOMMENDATIONS WORKSHEET

WORKGROUP: EMERGENCY SAFETY INTERVENTIONS (ESIs)

July 2026

PURPOSE OF SCHOOL SAFETY DASHBOARD

To design and implement a comprehensive School Safety Dashboard that ensures compliance with [Utah Code Section \(UCS\) 35G-6-806](#) and [UCS 53E-3-516](#). The dashboard will accurately display school safety data as identified in state code and other recommended information from workgroups, as voted upon by the Utah State Board of Education (USBE). All data displayed will protect student privacy and provide clear insights to support safe and equitable learning environments.

PURPOSE OF WORKGROUP

To identify data element(s) for recommendation to include in the School Safety Dashboard in the area of **ESIs** that are aligned with at least one of the following:

- [UCS 53E-3-516: School disciplinary and law enforcement action report](#)
- [USBE Strategic Plan](#)
- Other Code, Statute, or Rule: _____
- The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)

DATA ELEMENT(S) COLLECTION FOR RECOMMENDATION

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
1	Total number of ESIs used (school level)	• UCS 53E-3-516 • USBE Strategic Plan • Other Code, Statute, or Rule: ◦ R277-608 ◦ UCS 53G-8-301 • The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)	• We recommend that ESI data be aggregated at the school level - only the total number of ESIs be reported - in order to protect student privacy. • Required elements for data reporting: ◦ establish data collection and reporting requirements for an LEA regarding: ■ incidents of seclusion; ■ alternative interventions used; ■ Student demographic information, including sex, age, grade in school, and applicable disability status; ■ Incident outcomes ◦ An LEA shall collect and report data to the state board annually regarding: ■ an incident; and ■ for each incident, the: • duration of an intervention used to respond to the incident; • stated purpose for any intervention used; • alternative interventions attempted; • student demographic information, including sex, age, grade in school, and applicable disability status; and • relevant training offered to staff and if the staff involved received the relevant training without revealing the identity of the staff member.

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
2	Total number of ESIs used, reported by type (physical restraint or seclusion) - state level	• UCS 53E-3-516: School disciplinary and law enforcement action report • USB E Strategic Plan • Other Code, Statute, or Rule: ◦ R277-608 ◦ UCS 53G-8-301 • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• At the state level, we recommend reporting total number of ESIs used, reported by type • See previous section for data reporting requirements
3	At the state level, mean and median duration of ESIs	• UCS 53E-3-516: School disciplinary and law enforcement action report • USB E Strategic Plan • Other Code, Statute, or Rule: ◦ R277-608 ◦ UCS 53G-8-301 • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• At the state level, reporting the mean and median duration for both physical restraint and seclusion

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
4	Student Enrollment Number (once-a-year)	• UCS 53E-3-516: School disciplinary and law enforcement action report • USBE Strategic Plan • Other Code, Statute, or Rule: ○ R277-608 ○ UCS 53G-8-301 • The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)	• This data would provide important context that would allow stakeholders to compare data between schools (e.g. large school vs small school)

ADDITIONAL THOUGHTS TO SHARE

- ESI data should be reported on an annual basis (versus a monthly basis or as they occur) to help mitigate PII issues.
- We recommend including a link to code ([UCS 53G-8-301](#)) and rule ([R277-608](#)) so that interested parties are able to review the requirements for ESI use.
- Detailed ESI data is currently reported to USBE and regularly analyzed. However, there is a high risk of the release of PII if this data were made public. As such, our recommendations related to the data available on this dashboard are limited.

Actual data collected:

- LEA name
- School name
- SSID
- LEA ID
- Age
- Grade
- Sex
- Race/Ethnicity
- Special education status
- Incident date
- ESI type (physical restraint or seclusion)
- ESI purpose
- ESI duration
- Was Comprehensive ESI training offered?
- Was Comprehensive ESI training received?
- Alternative interventions used
- ESI outcome



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SCHOOL SAFETY DASHBOARD WORKGROUP RECOMMENDATIONS WORKSHEET

WORKGROUP: STUDENT DISCIPLINE AND BULLYING

July 2026

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PURPOSE OF SCHOOL SAFETY DASHBOARD

To design and implement a comprehensive School Safety Dashboard that ensures compliance with [Utah Code Section \(UCS\) 35G-6-806](#) and [UCS 53E-3-516](#). The dashboard will accurately display school safety data as identified in state code and other recommended information from workgroups, as voted upon by the Utah State Board of Education (USBE). All data displayed will protect student privacy and provide clear insights to support safe and equitable learning environments.

PURPOSE OF WORKGROUP

To identify data element(s) for recommendation to include in the School Safety Dashboard in the area of **Student Discipline and Bullying** that are aligned with at least one of the following:

- [UCS 53E-3-516: School disciplinary and law enforcement action report](#)
- [USBE Strategic Plan](#)
- Other Code, Statute, or Rule: _____
- The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)

DATA ELEMENT(S) COLLECTION FOR RECOMMENDATION

CURRENTLY REQUIRED

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information	Data Source or Collection Method
1	Number of disciplinary incidents by type (e.g., fighting, bullying, harassment, weapons, substance use)	• UCS 53E-3-516 • USB E Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Number of School Disciplinary Actions,* including the following for each incident: ○ Reason for action, type of action, number of suspensions imposed and average length, number of days of instruction lost to suspension, number of expulsions • Number of minors found in possession of a dangerous weapon on school grounds while school is in session or during a school-sponsored activity • If applicable, the demographics of an individual student who is subject to bullying, hazing, cyberbullying, retaliation	• Already collected in UTREx ○ Only showing aggregate numbers at the school level; do not disaggregate by demographic information. ○ If demographic information is displayed, clearly link the impact (suspensions/expulsions) of these incidents.

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information	Data Source or Collection Method
2	School suspensions Expulsions (out-of-school suspensions (OSS) and In-school suspensions (ISS))	• UCS 53E-3-516 • USB E Strategic Plan • Other Code, Statute, or Rule: ◦ Federal Statutes 34 CFR 300, 34 CFR 300.170 ◦ R277-750 • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• This data is already collected in UTREx as: ◦ Discipline method (p. 193) ◦ In school (p. 193) • UCS 53G-8-205 requires suspensions be reported but does not explicitly state the breakdown of reporting into in-school vs out-of-school suspensions. • the reason for the school disciplinary action; • the type of school disciplinary action; • the number of suspensions imposed; • the average length of suspensions; • the number of days of instruction lost due to suspensions; and • the number of expulsions; • Special Education Indicator 4 (34 CFR 300, 34 CFR 300.170,; SpEd Rules VIII.A., SpEd Rules VIII.E., SpEd Rules VIII.F., SpEd Rules VIII.M.,; R277-750 • LEAs are required to submit their data to the USB E, the USB E is required to report the Annual Performance to the federal government	• Collected in UTREx

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information	Data Source or Collection Method
3	Alcohol, tobacco, marijuana, controlled substance, uncontrolled substance, distribution	• UCS 53E-3-516 • USB E Strategic Plan • Other Code, Statute, or Rule: ◦ UCS 53G-8-205 • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Substance use on school grounds is a concern for both parents and students because it affects perceptions of school safety.	• All are currently reported in UTREx
4	Law enforcement referrals / incidents involving law enforcement	• UCS 53E-3-516 • USB E Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Required under 53E-3-516 ◦ Search and seizure ◦ An arrest ◦ Issuance of a citation ◦ Referral to the juvenile court ◦ <i>The filing of a delinquency petition, indictment, or criminal information</i> ◦ <i>Use of force by a law enforcement officer</i> • Critical for public transparency • Aligns with safety monitoring • Board Rule R277-912	• Some of these are collected. "Filing..." and "use of force" are not currently collected. These are purportedly collected in law enforcement reports, but schools do not have access to this data.

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information	Data Source or Collection Method
5	Bullying incidents involving protected classes	• UCS 53E-3-516 • USB E Strategic Plan • Other Code, Statute, or Rule: ○ Federal statutes: ○ UCS 53G-9-606 ○ R277-613 • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Required under R277-613 ○ Race ○ Disability ○ Gender ○ Religion	• Already collected in UTREx. • Note: Subjects of bullying appear to be underreported. By Utah code, offenders and subjects of bullying are to be reported per incident.
6	Reported vs. verified bullying incidents	• UCS 53E-3-516 • USB E Strategic Plan • Other Code, Statute, or Rule: ○ R277-613 • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• R277-613 requires tracking of bullying, cyberbullying, hazing • Provides transparency • Can be tied to Incident Association Record (I2) in UTREx	• Verified incidents of bullying are collected in UTREx. • Victim/subject of bullying data is underreported. • When this is displayed, this metric should be defined as clearly as possible to be as consistent as possible.

NOT EXISTING OR NOT REQUIRED

The following items would need a statute and/or rule change for USBE to collect this data from LEAs.

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information	Data Source or Collection Method
7	Percentage of students not using substances	• UCS 53E-3-516 • USB E Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)	• Not all LEAs participate in the SHARP survey, so I'm not sure how feasible this data point is statewide. However, I think it's important to balance substance incident data with information on the majority of students who are not using substances, in order to promote positive norms. Without that balance, we risk unintentionally normalizing the behaviors we are trying to prevent.	• Already collected in: ○ SHARP survey ○ School climate survey • Note: ○ These surveys are optional (opt-in) ○ While other surveys may not allow cherry-picking of questions, the model school climate survey allows survey modification.

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information	Data Source or Collection Method
8	Student perceptions of bullying behaviors.	• UCS 53E-3-516 • USBE Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)	• SHARP survey questions: ○ (124) How worried (if at all) are you about the possibility getting bullied ○ (127) During the past 12 months, how often (if at all) have you been picked on or bullied by a student on school property?	• Already collected in: ○ SHARP survey ○ School climate survey • Note: ○ These surveys are optional (opt-in) ○ While other surveys may not allow cherry-picking of questions, the model school climate survey allows survey modification.
9	Students “know how to report a problem at school” or “know how to ask for help”	• UCS 53E-3-516 • USBE Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)	• Already collected via school climate survey (6-12) and (3-5)	• Already collected in: ○ School climate survey • Note: ○ This survey is optional (opt-in) ○ While other surveys may not allow cherry-picking of questions, the model school climate survey allows survey modification.

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information	Data Source or Collection Method
10	Student perception of safety at school	• UCS 53E-3-516 • USBE Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)	• Already collected via school climate survey (6-12) and (3-5) • SHARP survey questions: ○ (63) I feel safe at my school. ○ (126) During the past 30 days, on how many days (if any) did you NOT go to school because you felt you would be unsafe at school or on the way to or from school?	• Already collected in: ○ School climate survey • Note: ○ This survey is optional (opt-in) ○ While other surveys may not allow cherry-picking of questions, the model school climate survey allows survey modification.
11	Parent perspective of school's implementation of rules	• UCS 53E-3-516 • USBE Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)	• Already collected via school climate survey (parent) ○ Students are recognized for positive behaviors at their school ○ School rules are applied equally to all students ○ Discipline is fair	• Already collected in: ○ School climate survey • Note: ○ This survey is optional (opt-in) ○ While other surveys may not allow cherry-picking of questions, the model school climate survey allows survey modification.

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information	Data Source or Collection Method
12	Parent perspective of bullying at school	• UCS 53E-3-516 • USBE Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)	• Already collected via school climate survey (parent) ◦ My student's school has an anti-bullying policy ◦ Adults at my student's school do their best to resolve bullying	• Already collected in: ◦ School climate survey • Note: ◦ This survey is optional (opt-in) ◦ While other surveys may not allow cherry-picking of questions, the model school climate survey allows survey modification.
13	Stability Rate	• UCS 53E-3-516 • USBE Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)	• Collected on Florida's School Safety Dashboard; it is the percentage of students from October census still remaining school in February census	• UTREx calculates/collects October 1 only.

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information	Data Source or Collection Method
14	County Context	• UCS 53E-3-516 • USB E Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• District level data is presented with “Context” detailing key county measures: ○ Education level ○ Unemployment ○ Child poverty ○ Uninsured Children ○ Racial Segregation ○ Law Enforcement Pop Ratio	• Safe Schools for Alex has these. • Utah’s Safe and Healthy Index may have these (DHHS).
15	Incident location including School type	• UCS 53E-3-516 • USB E Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Could include: classroom, hallway, bus, online ○ Enables prevention planning • Also: School type (traditional, alternative) ○ UTREx identifies school type and structure ○ R277-709 (YIC) distinguishes custody based education settings ○ I believe SPED also distinguishes school type? ○ Could prevent misleading comparisons.	• The school climate survey asks this question for bullying. Optional survey. • UTREx/CACTUS already collects school type/structure (e.g. alternative school, special education school)

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information	Data Source or Collection Method
16	Repeat offender rate (students with multiple incidents)	• UCS 53E-3-516 • USB E Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Supported by longitudinal student data in UTREx • Aligns with intervention-based discipline models • Supports early intervention strategies • Link Student Record with Incident reports in UTREx	• Not explicitly required to be reported by 53E-3-516, but calculated with UTREx data • Note: Students with more than one incident are reported in the annual Law Enforcement Action Report
17	School-level discipline rates (per 100 students)	• UCS 53E-3-516 • USB E Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• UTREx includes membership counts (Days in Membership) • Enables standardized comparisons across schools • Aligns with dashboard best practices (like Florida) • Note: While not required, already reported in annual report. • Note: The severity level has been created in the server and can be enacted in the background but is not required.	• Calculated with UTREx data

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information	Data Source or Collection Method
18	Student attendance patterns linked to discipline (truancy, absences)	• UCS 53E-3-516 • USB E Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• UTREx tracks: ○ Excused absences ○ Unexcused absences ○ Suspension absences • UCS 53G-6-201 defines truancy • Strong predictor of discipline issues • Helps define early warning indicators • Note: Need guidance on linking discipline, attendance, and truancy	• Calculated with UTREx data
19	Reporting culture	• UCS 53E-3-516 • USB E Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Reported vs. verified bullying incidents • Reporting culture vs. confirmed behavior	• Note: school climate survey asks how comfortable students feel about reporting an incident.

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information	Data Source or Collection Method
20	Staff training completion (bullying prevention)	• UCS 53E-3-516 • USB E Strategic Plan • Other Code, Statute, or Rule: ◦ R277-613 • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Required under R277-613 • Supports prevention-focused accountability • Aligns with USB E strategic goals	• Collected yearly with USB E Qualtrics
21	Reintegration Plan implementation	• UCS 53E-3-516 • USB E Strategic Plan • Other Code, Statute, or Rule: ◦ UCS 53G-8-213 • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• % of eligible students with completed reintegration plans (How many students need a reintegration plan vs how many completed the plan) • 53G-8-213 requires schools to develop multidisciplinary reintegration plans—including behavioral, mental health, and academic supports—for students involved in serious offenses, supporting the inclusion of data on interventions, coordination, and outcomes following high-risk disciplinary incidents • Many data points can be linked with the effectiveness of this code (recidivism, attendance)	• This is not necessarily all Youth in Care (YIC) data. Possibly with Utah Courts

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information	Data Source or Collection Method
22	Juvenile Gang and Other Violent Crime	• UCS 53E-3-516 • USB E Strategic Plan • Other Code, Statute, or Rule: ◦ UCS 53F-2-410 ◦ R277-436 • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Gang-related data is collected, but not included on the annual report	• UTREx collects “is this incident gang-related” • List the percentage of incidents that are gang related.
23	Incident Severity Levels	• UCS 53E-3-516 • USB E Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• The seriousness of an infraction • Listed on Florida dashboard	• This is mapped in our data servers and will be shared with LEAs. • Not required nor included in the report yet because it is new. • Utah has Most Serious, Serious, Moderate, and Minor.

ADDITIONAL THOUGHTS TO SHARE

- So long as survey questions/data is not required for schools to complete we will be unable to present to the public a complete and accurate understanding of school safety.
- We need to clearly define the difference between student discipline and law enforcement actions, AND ensure we aren't duplicating reporting of same incident. (ie: search and seizure)



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SCHOOL SAFETY DASHBOARD WORKGROUP RECOMMENDATIONS WORKSHEET

WORKGROUP: LAW ENFORCEMENT ACTION

July 2026

PURPOSE OF SCHOOL SAFETY DASHBOARD

To design and implement a comprehensive School Safety Dashboard that ensures compliance with [Utah Code Section \(UCS\) 35G-6-806](#) and [UCS 53E-3-516](#). The dashboard will accurately display school safety data as identified in state code and other recommended information from workgroups, as voted upon by the Utah State Board of Education (USBE). All data displayed will protect student privacy and provide clear insights to support safe and equitable learning environments.

PURPOSE OF WORKGROUP

To identify data element(s) for recommendation to include in the School Safety Dashboard in the area of **Law Enforcement Action** that are aligned with at least one of the following:

- [UCS 53E-3-516: School disciplinary and law enforcement action report](#)
- [USBE Strategic Plan](#)
- Other Code, Statute, or Rule: _____
- The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)

DATA ELEMENT(S) COLLECTION FOR RECOMMENDATION

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
1	UCS 53E-3-516. School disciplinary and law enforcement action report -- Rulemaking authority. (A) a search and seizure; (B) an arrest; (C) the issuance of a citation; (D) the filing of a delinquency petition, indictment, or criminal information; (E) a referral to the juvenile court; or (F) use of force by a law enforcement officer.	• UCS 53E-3-516 • USBE Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)	• Districts are not consistently positioned to access and maintain the law enforcement data required under UCS 53E-3-516, resulting in a reactive, end-of-year process that relies on external agencies. LEAs often do not have direct access to this information and must request it from local law enforcement, who may lack the capacity to respond or require significant time to compile the data. Additionally, court timelines and processes create uncertainty about when information becomes available, making it difficult for LEAs to track, follow up, and ensure accurate reporting throughout the year. • (Possible solutions) To address this, the School Safety Center can validate the issue through a brief survey of LEAs, conduct targeted site visits with LEAs to better understand where breakdowns are occurring and gather insight directly from the field, clarify that schools, not law enforcement, are responsible for ongoing data tracking, reinforce expectations through existing workgroups and meetings, incorporate clear guidance into trainings and communications, and pilot solutions with a small group of LEAs before scaling statewide.

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
2	Crime in Utah Dashboards Utah Healthy Places Index	• UCS 53E-3-516: School disciplinary and law enforcement action report • USBE Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)	• A potential improvement is to integrate existing publicly available data sources, such as the Utah Bureau of Criminal Identification (BCI) Crime in Utah dashboards or the Healthy Utah Index, into the School Disciplinary and Law Enforcement Action Report. Leveraging these established datasets could reduce reliance on LEAs and local law enforcement for data collection, improve consistency, and provide a more efficient, statewide approach to reporting.

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
3	Category of weapon etc.	• UCS 53E-3-516: School disciplinary and law enforcement action report • USB E Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Recommendation: Improve Detail and Context in Weapon Data Reporting • Current weapon data are reported in a way that limits clarity and usefulness for accurate interpretation. Specifically: • Reporting primarily reflects the required statutory category: • “The number of minors found in possession of a dangerous weapon on school grounds while school is in session or during a school-sponsored activity (53E-3-516).” • While USB E collects more detailed information, reports typically include only broad weapon categories tied to infractions, without additional context such as: ◦ The specific type or category of weapon beyond the general classification • Could be useful to collect how the weapon was discovered (e.g., self-report, search, tip, routine monitoring) (could be hard to collect this through current processes) • Whether the response involved disciplinary action only or included law enforcement involvement • Link to recent news article: Weapons in school: KSL data request finds discrepancies in reporting



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SCHOOL SAFETY DASHBOARD WORKGROUP RECOMMENDATIONS WORKSHEET

WORKGROUP: SCHOOL RESPONSIVENESS

July 2026

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PURPOSE OF SCHOOL SAFETY DASHBOARD

To design and implement a comprehensive School Safety Dashboard that ensures compliance with [Utah Code Section \(UCS\) 35G-6-806](#) and [UCS 53E-3-516](#). The dashboard will accurately display school safety data as identified in state code and other recommended information from workgroups, as voted upon by the Utah State Board of Education (USBE). All data displayed will protect student privacy and provide clear insights to support safe and equitable learning environments.

PURPOSE OF WORKGROUP

To identify data element(s) for recommendation to include in the School Safety Dashboard in the area of **School Responsiveness** that are aligned with at least one of the following:

- [UCS 53E-3-516: School disciplinary and law enforcement action report](#)
- [USBE Strategic Plan](#)
- Other Code, Statute, or Rule: _____
- The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)

DATA ELEMENT(S) COLLECTION FOR RECOMMENDATION

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
1	Parent Seminars	• UCS 53E-3-516 • USB E Strategic Plan • Other Code, Statute, or Rule: ◦ UCS 53G-9-703 • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Not currently required to report to USB E, required to do • Would like to see: ◦ Number of parent seminars ◦ Number of the listed topics covered (multi select with wording from the statute)
2	Comprehensive School Threat Assessment (CSTAG) Data	• UCS 53E-3-516: School disciplinary and law enforcement action report • USB E Strategic Plan • Other Code, Statute, or Rule: ◦ Senate Bill (S.B.) 51: School Safety Modifications • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Not currently required to report to USB E, In Progress • S.B. 51 Requires, "The state board to collect and report on all data that LEAs submit to the state board related to: student threat information" • Would like to see: ◦ How many behavioral threat assessments has your school completed? ■ Out of those, report the breakdown of findings: • no threat, • transient threat, • substantive threat, • very serious substantive threat • (include hover definitions, possible example, and items to consider)

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
3	Standard Response Protocol (SRP) Data	• UCS 53E-3-516: School disciplinary and law enforcement action report • USBE Strategic Plan • Other Code, Statute, or Rule: ◦ UCS 53G-8-803 • The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)	• Not currently required to report to USBE, required to do • UCS 53G-8-803 requires schools to use SRP • Would like to see: ◦ The number of protocols executed each school year: ■ Hold ■ Secure ■ Lockdown ■ Shelter ■ Evacuate • (include hover definitions, possible example, and items to consider)
4	School Student Support Personnel (qualified grant could support some of this)	• UCS 53E-3-516: School disciplinary and law enforcement action report • USBE Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)	• Not currently required to report to USBE • Would like to see: ◦ School student ratios and numbers for: ■ Nurses ■ Counselors ■ Social workers ■ Psychologists ■ Teachers • Element currently listed on the FL dashboard

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
5	Dept. of Health and Human Services (DHHS) County Information	• UCS 53E-3-516: School disciplinary and law enforcement action report • USB E Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Not currently required to report to USB E • Would like to see: ◦ Substance use data ◦ Tobacco data ◦ Immunization data ◦ Violence-related data • Link to DHHS dashboard to access county information. ◦ Utah Healthy Places Index ◦ Utah Health Data Dashboards • Could also be tied to SHARP survey data ◦ SHARP survey is opt-in • Element currently listed on the FL dashboard
6	Youth Suicide Rate	• UCS 53E-3-516: School disciplinary and law enforcement action report • USB E Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Not currently required to report to USB E • Rate of deaths from suicide among 5-19 year olds per 1000 children age 5-19 ◦ Would need to work with Dr. Staley (DHHS/Office of Medical Examiner (OME)) for this information • Element currently listed on the FL dashboard

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
7	Per Pupil Expenditure	• UCS 53E-3-516: School disciplinary and law enforcement action report • USBE Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)	• Expenditures per full-time equivalent student • Include the graph comparison to the state average • Include WPU rate for each school (aggregate of base rate plus all add-ons) • Possible dashboard that we can link to: https://spending-map-dash-main-976765884517.us-west3.run.app/ ◦ There are other data points they track that may be useful related to spending • Element currently listed on the FL dashboard
8	SafeUT	• UCS 53E-3-516: School disciplinary and law enforcement action report • USBE Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)	• Not currently required to report to USBE • Utilization data per LEA and/or school ◦ # of chats ◦ # of tips & top tip categories • Could mirror their dashboard (would need SafeUT permissions/integrations) • Example of public state-wide dashboard (SafeUT)

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
9	Screening	• UCS 53E-3-516: School disciplinary and law enforcement action report • USB E Strategic Plan • Other Code, Statute, or Rule: ○ UCS 53F-2-522 ○ R277-625 • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Conditionally required to report to USB E • Legislative report includes: ○ the approximate number of students that were screened in each participating LEA the previous school year; ○ the approximate number of students referred to additional services or for whom intervention was required; ○ the names and number of: ■ participating LEAs; ■ non-participating LEAs; and ○ an overview of how participating LEAs utilized distributed funds; • Superintendent's report includes: ○ aggregate data regarding the types of LEA provided mental health interventions, referrals, or other actions taken based on screener results.

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
10	Early Warning Systems (EWS)	• UCS 53E-3-516: School disciplinary and law enforcement action report • USB E Strategic Plan • Other Code, Statute, or Rule: ◦ UCS 53F-4-207 ◦ R277-627 • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Required to report to USB E, but in progress • LEAs are required to generate annual impact reports using aggregate, de-identified data ◦ # of students meeting LEA thresholds for targeted teacher support ■ # of students who are on track for academics, attendance, behavior, discipline, safety, course failures • # of intervention plans developed
11	Return to Learn integration	• UCS 53E-3-516: School disciplinary and law enforcement action report • USB E Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Not required for LEAs • Hover definition for Return to Learn • Link to the policies and support in place for students returning from: ◦ Medical illness ◦ Foster care ◦ Residential treatment ◦ Etc. • SafeUT Tip numbers for Return to Learn tip category

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
12	School use of seclusion room	• UCS 53E-3-516: School disciplinary and law enforcement action report • USBE Strategic Plan • Other Code, Statute, or Rule: ◦ S.B. 181 (2026) • The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)	• Required to report to USBE, in progress • Does the school have/use a seclusion room • establish data collection and reporting requirements for an LEA regarding: ◦ incidents of seclusion; ◦ alternative interventions used; ◦ incident outcomes
13	Prevention and tiered supports	• UCS 53E-3-516: School disciplinary and law enforcement action report • USBE Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USBE (rationale needed)	• Not required for LEAs • List of Universal supports • List of Prevention programs • Do they have an MTSS / PBIS implementation? ◦ Ratios of tier 2 and tier 3 intervention services • List of Clubs • List of After school programs • List of Community partners

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
14	Youth in Care (YIC) Interventions	• UCS 53E-3-516: School disciplinary and law enforcement action report • USB E Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Youth in Care - USB E Data Gateway • SIS systems have built indicators for “YIC” status • Conditionally required to be reported: We track only 26 districts that apply for funding ○ Number of Placement Changes (YTD) ○ Number of Behavior Referrals ○ Intervention Start Timeliness ■ How quickly the school responds once a need is identified ○ Number of Mentor or Support Contacts • DHHS shares overall data, meaning all students who are considered “YIC,” statewide, not just the 26 districts but we do not have access to that live data, and DHHS ultimately uses UTREx data to match which has been very low. So as of right now the source of truth data is USB E YIC data, we will be in the future looking into fixing this issue.

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
15	Number of Notices received by Courts/ Number of Reintegration Plans executed	• UCS 53E-3-516: School disciplinary and law enforcement action report • USB E Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Juvenile courts are required to send them to LEAs, LEAs receive them but are not required to report numbers of plans to USB E • Juvenile Courts keep a record of letters sent out and probation officers are reporting how many meetings they are invited too (there could be allot of grey area to this) • Student “backpack” in schools SIS system will include reintegration indicators, this could be a great way to pull that data in the future to show how many students were given a reintegration plan in a particular district.
16	Check and Connect (C&C) Mentors	• UCS 53E-3-516: School disciplinary and law enforcement action report • USB E Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Required to report YIC C&C mentors, but not any others ◦ # of YIC C&C mentors • # of prevention C&C mentors • # of interventions provided by C&C mentors • # of home visits done by C&C mentors

Item #	Data Element for Consideration	Supporting Rationale	Additional Supporting Information
17	TIMELINESS RESPONSIVENESS How quickly the school responds to, documents, and reports required incidents	• UCS 53E-3-516: School disciplinary and law enforcement action report • USB E Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Not required to collect or report universally • Incident Response Timeliness ◦ Time from incident occurrence → investigation closed • Reporting Timeliness ◦ Percentage of incidents entered within 24 hours ◦ Percentage of incidents validated within 3 school days ◦ Percentage of required data elements completed before submission to LEA
18	Referrals to Outside Services	• UCS 53E-3-516: School disciplinary and law enforcement action report • USB E Strategic Plan • Other Code, Statute, or Rule: • The best interest of public knowledge and helpful to parents, as determined by USB E (rationale needed)	• Conditionally required to report to USB E for SBMH Screening • Number of referrals for students to outside mental health services

School Safety Dashboard: Data Privacy Considerations

The balance between transparency and data privacy

Public education dashboards and reports offer the challenge of meeting transparency requirements while also meeting legal requirements to protect each student's personally identifiable information (PII).

Even aggregate data can sometimes reveal information about individual students. This is particularly true when a member of a school community has knowledge that they can combine with public data to draw conclusions about individual students. Additionally, even individuals from outside the school community could combine information from multiple sources of public information to infer information about individual students—which is a risk increasingly made easier by advancements in AI and machine learning.

Introduction to disclosure avoidance

To prevent accidental disclosure of student information, the staff who create public-facing dashboards and reports apply what we call disclosure avoidance techniques to any dashboards and reports that are intended for the public. Disclosure avoidance techniques include strategies such as reporting at the state or LEA level and not at the school level, not reporting low counts of students, and reporting only ranges rather than actual percentages. Using these techniques helps protect students so that someone who has other information about a student—like a member of the school community—can't use the report to make inferences about individual students in the school.

For more information about disclosure avoidance and why it matters, please view the [Introduction to Disclosure Avoidance video](#).

Disclosure avoidance and the School Safety Dashboard

Reported values at the school level will likely be very low, which necessitates applying disclosure avoidance techniques to protect student anonymity. Therefore, many values at the school level will likely be suppressed, meaning that they will display as "n < 10" instead of the actual count.

USBE Disclosure Avoidance Policy

USBE's policy on disclosure avoidance is found below. This language is adapted from the policy on datagateway.schools.utah.gov.

Public education reports offer the challenge of meeting transparency requirements while also meeting legal requirements to protect each student's personally identifiable information (PII). Recognizing this, the

reporting requirements state that subgroup disaggregation of the data may not be published if the results would yield personally identifiable information about an individual student. While data used by the Utah State Board of Education (USBE) and local education agencies (LEAs) is comprehensive, the data made available to the public is masked to avoid unintended disclosure of personally identifiable information at summary school, LEA, or state-level reports.

This is done by applying the following statistical method for protecting PII.

1. Underlying counts for groups or subgroups totals are not reported.
2. If a reporting group has 1 or more subgroup(s) with 10 or fewer students.
 - The results of the subgroup(s) with 10 or fewer students are recoded as “N<10”
 - For remaining subgroups within the reporting group
 1. For subgroups with 300 or more students, apply the following suppression rules.
 1. Values of 99% to 100% are recoded to $\geq 99\%$
 2. Values of 0% to 1% are recoded to $\leq 1\%$
 2. For subgroups with 100 or more than but less than 300 students, apply the following suppression rules.
 1. Values of 98% to 100% are recoded to $\geq 98\%$
 2. Values of 0% to 2% are recoded to $\leq 2\%$
 3. For subgroups with 40 or more but less than 100 students, apply the following suppression rules.
 1. Values of 95% to 100% are recoded to $\geq 95\%$
 2. Values of 0% to 5% are recoded to $\leq 5\%$
 4. For subgroups with 20 or more but less than 40 students, apply the following suppression rules.
 1. Values of 90% to 100% are recoded to $\geq 90\%$
 2. Values of 0% to 10% are recoded to $\leq 10\%$
 3. Recode the percentage in all remaining categories in all groups into intervals as follows (11-19,20-29,...,80-89)
 5. For subgroups with 10 or more but less than 20 students, apply the following suppression rules.
 1. Values of 80% to 100% are recoded to $\geq 80\%$
 2. Values of 0% to 20% are recoded to $\leq 20\%$
 3. Recode the percentage in all remaining categories in all groups into intervals as follows (20-29,30-39,...,70-79)

Additional resources

- [Data De-identification: An Overview of Basic Terms](#)
- [Frequently Asked Questions - Disclosure Avoidance](#)

UTAH STATE BOARD OF EDUCATION

Subject:

INFORMATION: Public Comment

Agenda item type:

Information Item

Recommended Action:**Purpose of Memo:**

Other

Background:**Committee Meeting Public Comment**

The Utah Schools for the Deaf and the Blind (USDB) appreciates your interest in sharing your public comments at the monthly board meeting. Individuals who wish to comment on a specific agenda item(s) during the committee meetings should contact Tammy Flint at tamaraf@usdb.org. Public comment requests are at the discretion of the committee chair.

You are welcome to send written comments to the Utah State Board of Education Board Members at any time: board@schools.utah.gov. Please include the city where you live in your email because your recognized board member may choose to reply personally.

Public Comment Disclaimer

1. Public comments are limited to 2-3 minutes per person.
2. A comment can express simple support or dissent about regulatory action. However, a constructive-comment supported by evidence, data, and information is more likely to-influence regulatory decision-making.
3. Individuals should not use the public comment to complain about personnel issues or attack or defame an individual.
4. Speakers making a highly detailed or complex comment should also consider providing a written outline of their words to the Board.
5. Please remember that children may hear your comments. Be thoughtful and professional.
6. Keep your comments appropriate for a general audience. If you have material with explicit language/content, submit such material in writing to the Board at publiccomments@schools.utah.gov

Standing Committee Meetings

Individuals who want to comment on a specific agenda item(s) during a committee meeting, please get in touch with the following people:

Cammy Wilcox

Finance Committee | cammy.wilcox@schools.utah.gov

Andrea Curtin

Standards and Assessment Committee and USDB Standing Committee | andrea.curtin@schools.utah.gov ([External Web Content](#))

Vanessa Barnes

Law and Licensing Committee | vanessa.barnes@schools.utah.gov ([External Web Content](#))

Contact:

Tamara A. Flint
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Attachments:

None

UTAH STATE BOARD OF EDUCATION

Subject:

INFORMATION: Monthly USDB Budget Update

Agenda item type:

Information Item

Recommended Action:

N/A

Purpose of Memo:

Staff recommendation

Background:

Ms. Jacobson will provide board members with a monthly USDB financial update.

The Utah Schools for the Blind (USB) enrichment funds are intended to provide specialized programming and enhanced experiential learning opportunities beyond the standard school curriculum for qualifying children with sensory disabilities in Utah. These funds are held in a trust for the beneficiaries and are not considered public, state, or taxpayer funds.

Contact:

Name: Deborah Jacobson
Title: Assistant Superintendent of
Operations
Phone: (801) 538-7627
Email: deborah.jacobson@schools.utah.gov

Attachments:

None

UTAH STATE BOARD OF EDUCATION

Subject:

INFORMATION: Superintendent Report

Agenda item type:

Information Item

Recommended Action:

N/A

Purpose of Memo:

Staff recommendation

Background:

Mr. Nielsen, Dr. Tanner and Ms. Patten will provide a summary of recent the USDB events to board members.

Contact:

Darin Nielsen, USDB Assistant Superintendent, (801) 629-4710, darinn@usdb.org

Dr. Michelle Tanner, Associate Superintendent of the Deaf, (801) 629-4711, michellet@usdb.org

Ms. Susan Patten, Associate Superintendent of the Blind, (801) 629-4715, susanp@usdb.org

Attachments:

1. USDB Assessment Systems Review Report (1)

Assessment System Review: Utah Schools for the Deaf and the Blind

Prepared by:

Center for Assessment

Dr. Cara Laitusis

Dr. Kyla McClure

Utah Schools for the Deaf and the Blind:

Aimee Breinholt, USD Project Lead

Kate Borg, USB Project Lead

Darin Nielsen, USDB Project Champion

Dr. Michelle Tanner, USD Advisor

Susan Patten, USB Advisor

Date of completion: July 24, 2026

Date of inventory: June 10-11 2026

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Executive Summary

The Utah Schools for the Deaf and the Blind (USDB) Assessment System Review was conducted in response to recommendations from the 2025 Utah Office of the Legislative Auditor General's performance audit. The review examined whether USDB's current assessment practices provide meaningful and actionable information about student learning, growth, communication, access, and educational benefit while avoiding unnecessary testing burden. The Center for Assessment facilitated a systematic inventory and review of assessments used across the Utah School for the Deaf (USD) and the Utah School for the Blind (USB), organized by grade band, learner profile, assessment purpose, intended user, content area, format, and administration schedule.

Overall, participants found that many USDB assessments are appropriately individualized and aligned with the instructional needs of students with sensory disabilities. However, the review also identified inconsistencies across grade bands and learner profiles, gaps in the measurement of social development and autonomy, limited participation in statewide assessments at USB, and some assessments at USD that require substantial instructional time without producing sufficiently useful information. The review resulted in five recommendations:

1. Partner with other state specialized schools to define benchmarks for proficiency and improve the available assessments of academic, social, and autonomy benchmarks.
2. Build greater coherence of academic assessments across grades, learner profiles, and users.
3. Increase participation in appropriate statewide academic assessments.
4. Add a common approach to measuring the autonomy and social benchmarks for use by school leadership and IEP teams.
5. Establish a committee to review recommended assessments for elimination and training for staff about which assessments are not required.

Greater detail regarding the findings, supporting evidence, and recommended implementation strategies is provided below. The appendices provide definitions of the instructional vision (Appendix A), learner profiles and grade bands (Appendix B), terminology and examples (Appendix C), screenshots of the inventory tool (Appendix D), and detailed summaries of the results (Appendices E–H). This report summarizes participants' holistic reflections on the assessments recorded in the inventory. Readers seeking additional detail can access the final [USB](#) and [USD](#) assessment inventories.

Background

The Utah Schools for the Deaf and the Blind (USDB) Assessment System Review was initiated in response to findings from the 2025 Utah Office of the Legislative Auditor General's [Performance Audit of USDB](#). In Chapter 2, the Performance Audit concluded that USDB should “focus more firmly on student learning and academic achievement” and that its current assessment efforts and monitoring practices need to improve to better support those priorities. The report recognized that standardized testing is especially challenging for USDB students because many have unique sensory, communication, and access needs that make conventional testing difficult, and their results are often difficult to interpret relative to broader student populations.

While recognizing the unique assessment challenges at USDB, the performance audit made two recommendations regarding assessment:

Recommendation 2.1: The Utah Schools for the Deaf and the Blind should identify benchmarks and report relevant comparisons of its assessment data in its annual reports to support policymaking and strategic planning at all levels of the organization.

Recommendation 2.2: The Utah Schools for the Deaf and the Blind should adopt an Educational Benefit Review process to ensure a proper focus on students' educational achievement.

In early 2026, USDB leadership met with the Utah State Board of Education Technical Advisory Committee (TAC) on Assessment and Accountability to seek guidance on the most appropriate assessments for evaluating student progress and supporting accountability benchmarks. Technical advisory members reviewed a list of existing assessments compiled by USBE and recommended that USDB take a more systematic approach to documenting current assessment practices. TAC members also raised concerns about the possibility of over-testing for some student groups. These recommendations were included in a [TAC memo to USDB and USBE](#). The memo recommended identifying benchmark indicators, learner profiles, and systematically identifying gaps in the current assessment system by determining whether any assessments were redundant, misaligned, or insufficiently useful for their intended purposes and users (teachers, IEP teams, and school leaders).

Purpose

The USDB Assessment System Review was designed to examine whether USDB's current assessment system produces meaningful data aligned with the USDB instructional vision and that serve the needs of teachers, IEP teams, and state and school leaders. Specifically, the assessment system review evaluated the time students spend in assessment, the content areas and skills assessed, the formats through which students are expected to demonstrate learning, and the educators, families, administrators, and policymakers who use assessment information. This review was intended to help USDB determine where current assessment practices support educational benefit, where they may create unnecessary

burden, and where additional or different evidence may be needed to support benchmarking, annual reporting, IEP monitoring, and long-term academic planning.

The purpose of this report is to summarize what USDB educators and stakeholders identified as working well, what may be out of balance, and what changes could improve the usefulness, coherence, and efficiency of assessment practices across programs. Rather than treating assessment reduction or replacement as the sole goal, the assessment system review examines whether each assessment contributes meaningful information about student learning, growth, access, communication, and educational benefit. The findings are intended to support USDB, USBE, and policymakers in making assessment decisions that are technically defensible, instructionally useful, and appropriate for students with sensory disabilities.

Methodology

In spring 2026, USDB Cross Departmental Data and Reporting Work Group met with staff from the Center for Assessment to review approaches to conducting an assessment system review. The team evaluated three assessment-system-review models developed by the [California Collaborative for Educational Excellence \(CCEE\)](#), [Wisconsin Department of Public Instruction](#), and [Connecticut State Department of Education](#). All three models were highlighted in the [National Academy of Education](#)'s guidebook for states and districts to implement Balanced Assessment Systems.

The committee selected the CCEE model because it includes professional-learning modules and open-source resources that could be adapted to the USDB context. Adaptations included developing an instructional vision to guide assessment decisions, defining benchmarks, organizing the inventory by learner profiles and grade bands rather than grade level alone, and adding IEP team members as an intended-user category.

Participants

USDB leadership and the Center for Assessment collaborated to plan and conduct the assessment system review. Dr. Cara Laitusis and Dr. Kyla McClure from the Center for Assessment facilitated the review process, with Darin Nielsen serving as the USDB project champion and Aimee Breinholt (USD) and Kate Borg (USB) serving as project leads. The review also included a cross-disciplinary group of USDB participants representing school psychology, speech-language services, ASL listening and spoken language, orientation and mobility, deafblind services, teachers, outreach programs, post-high programming, and administrative leadership. In addition, Tracy Gooley (USBE) attended to observe the process and offer insights into assessment practices as appropriate.

Participants who compiled the inventory during the in-person meeting days, included:

- Breanna Cannon — Speech and Language Pathologist
- Robbin Clark — Bridges High School and Post High, Director
- Sharon Draper — USB Blind Outreach Assistant Director
- Hannah Ence — Teacher, USD

- Erin Farrer — Deafblind Services Director
- Megan Frowick-Morgan — Jean Massieu School of the Deaf, Secondary Director
- Stephanie Hardee — USB School Psychologist
- Paige Huefner — Jean Massieu School of the Deaf, PreK/Elementary Director
- Ewelina Meade — Orientation and Mobility Assessments
- Hilary Moody — Deaf and Hard of Hearing Services Director
- Francis Sorrentino — ASL Specialist
- Emily Swensen — Teacher, USD
- Brandon Watts — Blind Outreach Director
- Lindsey Wert — USD School Psychologist
- Aimee Breinholt — Project co-lead (USD)
- Kate Borg — Project co-lead (USB)
- Michelle Tanner — USD Associate Superintendent
- Susan Patten — USB Associate Superintendent

Process

The USDB Assessment System Review was adapted from the CCEE Assessment System Review Online Learning Pathway, which is designed to help school and district teams examine the assessments students experience across the year and evaluate whether those assessments are meeting the information needs of teachers and leaders. See the [CCEE](#) Assessment System Review Online Learning Pathway for additional details

For the USDB review, Drs. Laitusis and McClure facilitated an adapted process with USDB participants. The adapted process included the following phases and modules:

- Phase 1: February-May 2026
 - **Module 1: Preparing to Launch / Identifying the “Why”:** Clarifying the purpose of the review and confirming shared understanding of why USDB was engaging in the assessment system review.
 - **Module 2: Defining the Instructional Vision:** Prior to the in-person training the project leads worked with their school teams and the project champion to develop an instructional vision.
 - **Module 3: Defining Learner Profiles and Assessment Needs:** Establishing common understanding of who uses assessment information, for what purposes, and when. In addition, this step required creating Learner Profiles to ensure that they were broad enough to encompass at least 95% of students served.
- Phase 2: June 10-11, 2026
 - **Module 4: Conducting the Inventory:** Documenting the assessments experienced by learner profiles across grade bands and content areas.
 - **Module 5: Reviewing Visualizations and Reflection:** Examining patterns in assessment time, content coverage, assessment types, formats, users, gaps, redundancies, and alignment. Participants completed reflection questions and recommended assessments to eliminate, replace, or add.

- Phase 3: June-July 2026
 - **Module 6: Developing Recommendations:** After the assessment system review, the Center for Assessment summarized the findings included in this report and the participant reflections. This report summarizes those along with specific recommendations developed with consultation from USDB administrative leadership.

Phase 1 of this process was conducted virtually and included Dr. Laitusis facilitating USDB leadership in clarifying the purpose of the review, instructional vision, learner profiles, and grade bands. The appendices include detailed descriptions of the instructional vision ([Appendix A](#)) and each learner profile by grade bands ([Appendix B](#)). In addition, USDB project leads then worked to formalize definitions and confirmed decisions with full group participation. Modules 1, 2, and 3, were then briefly reviewed during the in-person meeting with all participants on June 10, 2026. This process established common language, and checked for shared understanding before beginning the assessment system review work in Phase 2.

Phase 2 included completion of Modules 4 and 5 in-person on June 10th and 11th, 2026. During this phase participants received training on terminology and were provided with a resource sheet to define the assessment formats, types, and users. See [Appendix C](#) for definitions and examples provided to participants. Module 4 was completed by documenting all assessments experienced by learner profile and grade band. Module 5 was completed by examining data visualizations of assessment time, month, user, format, and type by benchmark. Screenshots of the inventory tool (Module 4) and data visualizations (Module 5) are available in [Appendix D](#). The final inventory and data visualization files are available for both [USB](#) and [USD](#).

Phase 3 included the completion of Module 6 and was done virtually in the weeks that followed. The results and recommendations are provided in the next section.

Results

Prior to the assessment system review, respondents were asked to estimate the amount of instructional time used for assessment. Across the combined USDB sample ($n = 17$), responses ranged from with estimates of 5%, 10%, and as much as 15% of instructional time. USD respondents more often described state assessment time as exceeding the federal recommendation of 2% of instructional time, particularly for students who require extended time, language access, individualized administration, or repeated attempts to obtain usable information. Several USD respondents emphasized that the concern is not only the amount of time spent assessing students, but also the limited instructional value of some assessments. Since many parents at USB have opted out of state testing in recent years, the USB respondents were more mixed. Some viewed assessment time as appropriate when it was tied directly to functional vision, orientation and mobility, Expanded Core Curriculum, or IEP goal development, while others described students as being assessed “all the time” or assessed too often with tools that are not sufficiently meaningful for blind, visually impaired, or deafblind learners. After documenting all the assessments given, the USD and USB teams independently evaluated the assessments by learner profile. Participants

were asked to reflect again on the amount of instructional time devoted to assessment and the balance of assessment time across the school year.

The participants completed the reflections immediately after finishing the inventory. However, some revisions and additions were made in the weeks that followed to fill in missing data. The Center for Assessment summarized these reflections in greater detail in tables by grade bands and learner profile in [Appendix E](#). The summary below presents participants' perceptions for USD and USB separately across four areas:

- Timing and balance
- Redundancy and user utility
- Coherence with instructional vision
- Recommendations for tests to eliminate or replace

Utah Schools for the Deaf Reflections

USD: Time and Balance Reflections

USD participants evaluated the appropriateness of assessment time less by minutes alone and more by the assessment's fit for the student population and the degree to which it produces actionable information to justify the time and effort required. Respondents did not suggest that all students are tested too much. Instead, their reflections indicate that testing time becomes problematic when assessments are poorly matched to students' language, access, academic, or support profiles. Reflections included:

- Across USD learner profiles, respondents also noted that the assessments are concentrated primarily in academic areas, with fewer formal measures of social development, well-being, and autonomy. This gap was noted most clearly for K–2 students and students in grades 7–12, where respondents identified a need for additional tools to assess social skills or broader developmental outcomes.
- Testing was described as heavier at the beginning and end of the school year, particularly in September and April. For K–2 Profiles 1–3, respondents emphasized that the concern was not only the scheduled assessment calendar, but also the possibility that IEP-related testing could overlap with already heavy windows and create additional strain for individual students. For students with delayed language, respondents suggested resetting IEP timelines where possible to reduce overlap with high-testing periods.
- Testing-time concerns varied by learner profile and grade band.
 - For K–2 Profile 1 students, who are expected to access age-appropriate academic content with appropriate accommodations, respondents questioned the usefulness of MAP Reading because it is heavily phonics-based and difficult to interpret for many deaf students. In this case, the time burden appears difficult to justify because the results are not viewed as useful for programmatic decisions.
 - For K–2 Profiles 2 and 3, staff described overall assessment minutes as fairly distributed, but still raised concerns about beginning- and end-of-year clustering, suggesting that timing may compound fatigue, frustration, or loss of instructional time even when total minutes are not extreme.

- For students with age-appropriate language and academic skills, respondents generally viewed the distribution of assessments as aligned with school goals, but identified possible reductions, including discontinuing expressive-language assessment for students already performing on level.
- For students with language deprivation and Deaf Disabled or complex needs, respondents raised stronger concerns about the fit of grade-level state and benchmark academic assessments, particularly when the time required may not be justified by the usefulness of the information produced.

USD: Redundancy and User Utility

The redundancy findings for USD suggest that the main issue is not the number of assessments, but whether they provide useful information for the intended user.

- For K–2 students, respondents questioned the usefulness of a phonics-based reading assessment for deaf learners and recommended dropping NWEA MAP, while retaining the MAP math assessment.
- For students with delayed language and language deprivation, respondents reported that leaders could use some assessments to track general progress, but that the results did not always provide curriculum-specific or program-level insight.
- For grades 3–6, respondents identified clearer overlap between grade-level state assessments and interim academic assessments, especially because both were viewed as producing broad information for district leaders. However, reflections did value some duplication as a form of checks and balances for IEP teams and teachers.
- For students with language deprivation, concerns focused less on duplication and more on how results are framed and used. Respondents noted that grade-level reporting can understate student progress and does not sufficiently reflect sign-language development or growth in language access.

USD: Coherence with the Instructional Vision

Respondents generally viewed the USD assessment system as aligned with the instructional vision, especially because it includes multiple formats and diagnostic tools intended to identify student needs. For K–2 students, respondents felt the range of formats was appropriate, but questioned whether the system captures the right information, particularly in social and well-being domains. This suggests that the current assessment system may be coherent academically but incomplete developmentally.

For grades 3–6, respondents felt that collecting multiple sources of data supports the instructional vision, but they questioned whether staff can combine the data into a meaningful and usable picture of the student. They also noted that some grade-level academic assessments may test narrow skills that do not fully represent student learning, especially for students with language deprivation. In addition, a teacher-administered reading assessment was viewed as useful but burdensome because it pulls teachers away from instruction. Respondents suggested that training additional staff to administer the assessment could reduce this burden without eliminating useful data.

USD: Retaining, Revising, and Elimination of Assessments

After the reflection portion of the assessment system review, participants were asked to recommend whether each assessment should be eliminated without replacement, eliminated and replaced, retained with modifications, or retained as administered. In addition, an option to add assessments was allowed in a notes tab. Below is a summary of those recommendations provided by participants. Across the USD inventory, 55 of 566 (9.7%) testing events were flagged for removal. In several cases the MAP test was recommended for removal in fall and winter but not the spring. This occurred when the group saw value in an end-of-year adaptive test for accountability but did not identify a primary user for the fall and winter administrations. In other cases, all three MAP tests were recommended for elimination. This occurred in reading when the test adapted to a construct that was not appropriate for the learner profile (e.g., phonics when students were routed to grades K-2 difficulty). There were 55 unique combinations of learner profile, grade band, tests, and recommendation across 13 learner profile groups. Of these, 40 records were marked “Eliminate and do not replace,” while 15 were marked “Eliminate and replace.” A full list is provided in [Appendix F](#).

The recommendations suggest that assessment removal should be targeted rather than applied uniformly across all students. For K–2 students, MAP Reading and BRACKEN were among the assessments most frequently recommended for removal. BRACKEN was identified for removal because it is no longer published. In addition, the PPVT and EVT were also identified for removal for K–2 students with delayed language. For K–2 Deaf Disabled students, the ASL Academic Comprehension Test was recommended for removal in both the fall and spring administrations.

For students in grades 3–6, the removal recommendations were concentrated among students with delayed language and language deprivation. Several MAP and RISE assessments were identified for removal, particularly MAP Science and RISE Reading, Writing, Math, and Science. The Language Sample was also identified for elimination and replacement across multiple grades 3–6 learner profiles, suggesting that this assessment may still serve an important purpose but may need to be replaced with a better-aligned tool or process. Some participants saw value in the language samples for students with delayed language, language deprivation, or additional disabilities because of the rich information they provide, but acknowledged that the samples require considerable time to collect.

For students in grades 7–12, the recommendations shifted primarily toward replacing RISE assessments for students with age-appropriate language and academic skills, delayed language, and language deprivation. In contrast, for Deaf Disabled students in grades 7–12, the IXL ELA Diagnostic and IXL Math Diagnostic were recommended for elimination without replacement. At the post-high school level, the Developmental Reading Assessment was repeatedly identified for elimination without replacement for students with language deprivation.

Overall, the findings indicate that assessment reduction should focus on improving fit by learner profile and grade band. Some assessments appear to be redundant or not useful for particular student groups and can be removed without replacement. Others appear to reflect a valid assessment need but require a better-aligned replacement, especially for students with delayed language or language deprivation.

Utah Schools for the Blind Reflections

USB: Timing and Balance Reflections

Across USB learner profiles, respondents generally viewed the overall assessment distribution as appropriate and aligned to the Expanded Core Curriculum. Reflections were limited or for some older student groups, so conclusions for grades 9–12 and post-high school students should be interpreted cautiously. Other reflections included:

- For K–2 and grades 3–6 students with grade-level academic access and additional learning needs, the primary burden was described as falling more on teachers than on students, because many assessments are brief but numerous checklists or observational tools.
- Respondents suggested that some twice-yearly assessments could potentially be reduced to once per year.
- For students in grades 3–6, respondents noted that state testing contributes to a substantial spring assessment burden, although no students participated in state testing this year because their parents opted them out. USB participants emphasized that these parent opt-outs reflected individual family choices rather than a systematic policy decision.
- For students with complex access and high-impact support needs, respondents viewed the higher assessment volume as justified because vision, learning-media, orientation-and-mobility, and related measures serve distinct diagnostic purposes that cannot easily be combined.

USB: Redundancy and User Utility Reflections

Most assessments were described as serving IEP teams and teachers, with a smaller number of measures used by leaders. For students with grade-level academic access, the assessment system was viewed as producing a coherent picture rather than redundant information.

- Respondents reported little true duplication in USB assessments. The main gap was the lack of a clear way to show standards-based literacy progress and to help leaders interpret data for students with complex access needs.
- Respondents noted that some measures, particularly vision-related reporting, may be subjective and vary by rater or by the student's functioning on a given day.
- For students with additional learning needs, vision and communication assessments were seen as especially useful because they provide information that would otherwise be missing and can directly inform instructional adjustments.
- For students with complex access and high-impact support needs, observation- and checklist-based assessments were viewed as essential because standardized measures are often inaccessible.

USB: Coherence with the Instructional Vision Reflections

Respondents generally agreed that USB assessments support the instructional vision, particularly because many are individualized, functional, observation-based, and connected to family partnership. For students with grade-level academic access, teacher observations, checklists, and performance tasks were seen as well aligned to specialized instruction, although respondents noted that some braille

assessments may not fit all students equally well. For students with additional learning needs, parent-and-teacher rating scales were viewed as consistent with USB's emphasis on family partnership, but respondents suggested more consistent administration schedules and clearer transitions to more advanced literacy assessments as students' skills develop. For students with complex access and high-impact support needs, the assessment system was viewed as strongly aligned to individualized instruction, but respondents identified a need for more structured assessment of sensory processing, tactile access, and body awareness.

USB Retaining, Revising, and Elimination of Assessments

For the Utah Schools for the Blind, the assessment removal recommendations were much more limited than those identified for the School for the Deaf. Across the USB inventory, only five of 599 testing events (0.8%) were flagged for removal. All five were marked "Eliminate and replace," indicating that respondents did not recommend eliminating the need for assessment altogether, but rather replacing the current assessment with a more consistent or better-aligned approach. All five removal recommendations focused on Braille Curriculum Based Measurement (CBM). This assessment was recommended for replacement across several student groups, including K–2 and grades 3–6 students with grade-level academic access, K–2 and grades 3–6 students with additional learning needs, and grades 3–6 students with complex access and high-impact support needs. No removal recommendations were identified for grades 7–12 or post-high-school USB student groups. Overall, the USB findings suggest a targeted recommendation: replace the current Braille Curriculum Based Measurement process with a clearer and more consistent assessment approach, rather than reducing the overall assessment system broadly.

Recommendations

The Center for Assessment reviewed reflections and recommendations for retaining, revising, and removing assessments and provided several recommendations for discussion with USDB leadership and project co-leaders. These recommendations were further refined and are summarized below along with specific strategies that may be helpful to consider.

Recommendation 1: Partner with other state specialized schools to define benchmarks for proficiency and improve the available assessments of academic, social, and autonomy benchmarks

One limitation in measuring benchmarks unique to specialized schools is the lack of available assessments and the small populations available for establishing comparison groups and developing norms. USD and USB have strong relationships with other specialized schools and membership organizations to form cross state consortia to build common assessments which can be used in program evaluation.

Recommended strategies include:

- Work with USBE to approve joining cross-state consortia to develop assessments for benchmarks. For example, [Boston University's Deaf Center](#) is building cross state datasets based

on assessment data for ASL language development. This would require approval to share student level data.

- Work with membership organizations to participate in data collection efforts for specialized schools to allow for better alignment with the instructional vision and annual assessments. For example, the [Conference of Educational Administrators of Schools and Programs for the Deaf](#) (CEASD) is creating a national repository of information for Deaf and hard of hearing students to develop national norms. It may be beneficial to support these efforts and contribute USD data.
- Work with USBE to streamline approval to participate in applications for federal grants to build assessments better aligned to accountability benchmarks of specialized schools. For example, during the period of this assessment system review the U.S. Department of Education issued a [Competitive Grant for State Assessments](#) competition that was aligned with USD goals to develop screening and progress monitoring assessments aligned to the needs of students at USD. Unfortunately, USBE could not apply due to the timeline for securing USBE approval and the USED proposal deadline.

Recommendation 2: Build greater coherence of academic assessments across grades, learner profiles, and users.

While IEP teams have the authority to determine the most appropriate assessment of IEP goals, USDB should develop some guidelines that improve the coherence of available academic assessments across grades, learner profiles, and users. This recommendation is particularly relevant for USB because many of the assessments of a common construct (e.g., braille literacy) vary across grade bands and learner profiles. This inconsistency makes it difficult to summarize data for accountability within a benchmark indicator. However, both USD and USB would benefit from establishing clear, consistent assessment tools aligned to different learner profiles to measure student growth in key benchmark areas such as reading, language, and numeracy. These tools should help IEP teams and school leaders determine which assessments are most appropriate based on each student's learning needs, communication access, disability profile, and instructional goals. Clear guidance is also needed to define when it may be appropriate to use a measurement tool typically associated with another learner profile to assess a student's progress, particularly when the student is demonstrating growth beyond the expectations of their current profile or when another tool would provide a more accurate measure of emerging skills. This would improve consistency, support meaningful IEP goal setting, strengthen accountability practices, and reduce redundant testing time. For example, IEP teams at USB report using Utah state reading assessments to inform instructional decisions; however, this data is not currently used consistently beyond that purpose.

Recommended strategies for increasing coherence include:

- Create a table of appropriate assessments for each learner profile by grade and guidance on when a student moves up to the next level of assessment difficulty.
- Review all assessments within a content area to determine if some measures used by IEP teams could be replaced with assessments used by leadership (e.g., Woodcock Johnson vs. NWEA MAP).
- Identify assessments that can form a progression across learner profiles to allow for IEP teams to set annual goals and measure progress along a continuum. For example, the USB participants

identified the [Communication Matrix](#) assessment as providing a useful measure for students with emerging language. This Communication Matrix could serve as an early point on a learning progressions that connect to existing language assessments used in Utah (WIDA ACCESS) because it aligns with language based “[can do](#)” statements with grade level expectations for speaking, listening, reading, and writing.

Recommendation 3: Increase participation in appropriate statewide academic assessments.

USDB should continue efforts to increase participation in appropriate statewide assessments. This is particularly important at USB, where parents have historically opted students out of testing. It should be noted that USB participants included all state tests (e.g., RISE) in the inventory because they are offered. As a result, the presence of these assessments in the inventory should not be interpreted to mean that USDB currently has consistent, usable state assessment data for all eligible USB students.

Recommended strategies for including more students in state tests include:

- Clearer communication with families about the purpose of state testing, how results are used, what accessibility features and accommodations are available, and how participation contributes to a more complete understanding of student learning.
- USBE can consider changes to adaptive test design to reduce administrative testing time. The current RISE assessment allows students who require a braille accommodation to participate using ‘on the fly’ braille production. This decision was based on a prior case law in Oregon where a blind student challenged the Oregon Department of Education for not providing a computer-based adaptive test when the test design was promoted as offering many benefits (e.g., reduced testing time, greater precision). However, USB participants shared that this approach adds to the administrative burden and wait times for students as items are embossed. Offering an option of a linear test form may reduce the testing time and utility of data for use by school leaders.
- Explore changes to adaptive test designs to increase the utility of test data. One limitation of statewide assessments is the lack of utility for school leaders because the majority of students are performing below grade level expectations and state assessments are designed to measure grade level standards. A test design that adapts to appropriate grade level content would improve the ability of the test to more precisely measure student achievement and growth. It is important to note that on state assessments, this solution would require a waiver from the U.S. Department of Education. If approved, this option could allow for the test to route students to math and reading test items that better match the students' achievement level. One important caveat is that for students at USD, new items would need to be developed to measure both foundational reading skills (e.g., finger spelling) and language proficiency (ASL and English).

Improving participation and documenting the reasons for nonparticipation more systematically would strengthen USDB’s ability to interpret state assessment data, reduce misleading conclusions, and better determine where additional common measures are needed to support accountability, instructional planning, and IEP progress monitoring.

Recommendation 4: Add a common approach to measuring the autonomy and social benchmarks for use by school leadership and IEP teams.

The current assessments do not include measures of autonomy or social benchmarks for use by school leadership and IEP teams. This makes it difficult to evaluate programs or IEP goals.

Recommended strategies include:

- Develop or adopt an individualized annual survey for both parents and students as part of the IEP review. These surveys could be tailored to the unique content areas identified by USD and USB in the instructional vision, but can build off existing measures. For example, there are several measures of school climate in use that would offer a comparison sample. USD currently administers similar surveys but they are anonymous which reduce utility because it is not possible to measure change at the student level.
- Explore if some existing assessments used by teachers and IEP teams could be used by leadership if aggregated across students. For example, USB assessments of expanded core curriculum could be used to set benchmarks for identifying proficiency for use by leadership and IEP teams.
- Implement a third-party review process to corroborate student-reported proficiency with behavioral observations and incorporate the findings into formal Educational Benefit Reviews and IEPs.

Recommendation 5: Establish a committee to review recommended assessments for elimination and training for staff about which assessments are not required.

Participants recommended several assessments to be eliminated or replaced. However, during Module 6, it became clear that there were no available assessments to replace and/or there may be value in some of these assessments. For example, USD recommended removal of fall MAP testing, but these could be useful to measure summer learning loss. Likewise, winter MAP testing is currently optional and may only require increased training to make USD staff aware of when they should conduct winter testing.

Recommended strategies could include:

- Establish a committee of teachers and school leaders to review tests recommended for elimination or replacement.
- Provide training for staff on which assessments are required and which are optional.
- Partner with other specialized schools and OSEP technical assistance centers to explore alternative assessments that may serve teacher and IEP users needs.

Appendix A: Instructional Vision

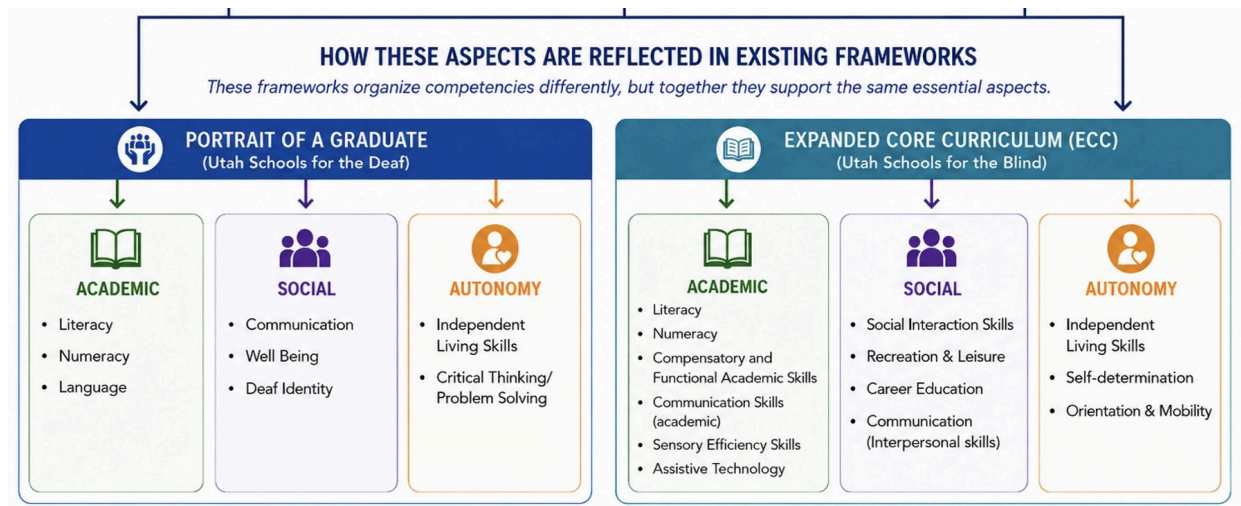
Modules 1, 2, and 3 were completed during Phase 1, primarily through virtual and asynchronous activities. District leadership identified the instructional vision, learner profiles, and grade bands for the review and was responsible for considering participant recommendations in relation to the broader assessment plan for all USDB students. In addition, the terminology and data to be collected was defined ahead of time by the Center for Assessment with input from the project champion and project leaders from USB and USD.

Instructional Vision

The USDB instructional vision was developed to align with the USD Portrait of a Learner and USB Expanded Core Curriculum, while recognizing the importance of academic literacy and numeracy skills, this vision also includes the specialized instructional needs of students served at each school.

We cultivate a collaborative environment in which families and educators work in partnership to design and implement comprehensive, evidence-based instruction across educational settings, supporting learners from birth through adulthood to communicate effectively, advocate confidently, and thrive in a changing world.

This vision requires specialized instructional approaches that enable every student to make progress towards mastery of academic, social, and autonomy benchmarks.



Appendix B: Learner Profiles by Grade Bands

While most assessment system reviews use grade level to gather information. The unique needs of students guide both the instructional vision and resulting assessments. The learner profiles included:

Utah Schools for the Deaf (USD):

- Age-appropriate Language and Academic Skill
- Delayed Language
- Language Deprived
- Deaf Disabled.

Utah Schools for the Blind (USB):

- Grade-level Academic Access
- Additional Learning Needs
- Complex Access and High Impact Support Needs

These learner profiles were then further classified by grade level bands. Both schools used Kindergarten to Second Grade (K-2) and Third to Sixth Grade (3-6). However, grades 7-12 were a single grade band at USD and two grade bands (7-8 and 9-12) at USB to accommodate differences in school-based and outreach populations. Finally, post high school grade bands were included for all learner profiles at USB but only the USD students with the greatest support needs (Language Deprived and Deaf Disabled).

Table 1 below includes all learner profiles for school-based students at USD and USB. In addition, detailed descriptions of each learner profile are provided below.

Schools for the Deaf Learner Profiles

USD Learner Profile 1: Students with Age-appropriate Language and Academic Skills (K-2, 3-6, 7-12)

This population includes students who are deaf, hard of hearing, or deafblind and who do not have co-existing conditions that substantially affect learning. These students generally have age-appropriate language, communication, and academic skills and are expected to perform close to, at, or above peers of the same age when appropriate access and accommodations are provided.

Students in this group receive instruction aligned with the standard curriculum. They may require accommodations and/or assistive technology (HAT), but they generally do not require intensive academic intervention or specialized instructional strategies beyond those needed to address language access. Assessments that rely heavily on listening, phonics, or spoken-language access will still need to be interpreted with caution. These students are still likely to be impacted by limited opportunities for incidental learning.

(We hypothesize that these students will demonstrate scores within the typical range on both nonverbal and verbal IQ measures.)

USD Learner Profile 2: Students with Delayed Language (K-2, 3-6, 7-12)

This population includes students who are deaf, hard of hearing, or deafblind and who also have language delays that affect academic progress. They may have delays in ASL, spoken/written English, or a combination of both. These students demonstrate significant deficits in information learned through incidental learning. These students could have autism, ADHD, vision impairment, syndromes, or other needs that require some additional intervention and specially designed instruction aligned with the standard curriculum.

Students in this group may receive related services such as speech-language therapy, occupational therapy, physical therapy, counseling, orientation and mobility services, audiology, or assistive technology support.

For deaf or hard-of-hearing students, a lack of English proficiency impacts their performance on standardized assessments. In addition, reading-level assessments for students without access to spoken language who do not use phonics in their reading development are invalid and must be significantly adapted to meet their needs.

(We hypothesize that these students will demonstrate a mild discrepancy between nonverbal and verbal IQ measures. Specifically, we anticipate that nonverbal IQ scores will fall within the typical range, while verbal IQ scores will reflect mild delays, scoring approximately one standard deviation below the mean.)

USD Learner Profile 3: Students with Language Deprivation (K-2, 3-6, 7-12, PH)

This population includes students who are deaf, hard of hearing, or deafblind who have lacked full access to a natural language during early childhood, especially during the critical period when the brain is most prepared to acquire language. This often happens when deaf or hard-of-hearing children do not receive accessible communication exposure early enough, such as early exposure to sign language, effective spoken language access through hearing technology and support, and/or consistent communication with caregivers and educators.

Because language development is foundational to learning and cognitive growth, deprivation affects academic achievement, literacy development, social-emotional skills, executive functioning, mental health, and communication abilities. Students in this group require intensive language support and functional skills instruction. Due to significant gaps in academic development compared to their peers, they need specially designed instruction that may differ significantly from the standard curriculum, with emphasis on individualized learning goals. For students in this group, traditional academic achievement measures provide limited information.

Students in this group may receive related services such as speech-language therapy, occupational therapy, physical therapy, counseling, orientation and mobility services, audiology, or assistive technology support.

(We hypothesize that these students will demonstrate a significant discrepancy between nonverbal and verbal IQ measures. Specifically, we anticipate that nonverbal IQ scores will fall close to or within the

typical range, while verbal IQ scores will reflect significant delays, scoring two or more standard deviations below the mean.)

USD Learner Profile 4: Students who are Deaf Disabled (K-2, 3-6, 7- 12, PH)

This population includes students who are deaf, hard of hearing, or deafblind and have intensive, complex access and learning needs that substantially affect communication, independence, participation, and academic progress. These students have multiple disabilities that require alternative instructional strategies, adapted standards, individualized communication systems, life skills instruction, augmentative or alternative communication, intensive related services, or highly individualized support from a multidisciplinary team.

For students in this group, traditional academic achievement measures provide very limited information, even when they are significantly adapted and interpreted within the context of the student's sensory, communication, cognitive, physical, and language access needs. Instruction and assessment often focus on access to communication and language, early literacy and numeracy foundations, functional academic skills, independence, self-advocacy, and meaningful participation in their surroundings.

(We hypothesize that these students will demonstrate significant delays on both nonverbal and verbal IQ measures. Additionally, we anticipate that scores on both measures will be comparable, reflecting similar levels of delay across the two assessments.)

Schools for the Blind Learner Profiles

USB Learner Profile 1: Grade-Level Academic Access (K-2, 3-6, 9-12, PH)

Students who are blind, low vision, or deafblind and are performing at or near grade-level academic expectations when provided appropriate access, accommodations, and sensory-specific supports. These students generally participate in general education curriculum and instruction and may require braille, assistive technology, orientation and mobility, accessible materials, interpreting, or other access supports, but do not require significant academic modification or intensive intervention.

Assessment results should be interpreted within the context of sensory access needs, including access to visual, tactile, auditory, or communication-based information.

USB Learner Profile 2: Additional Learning Needs (K-2, 3-6, 9-12, PH)

Students who are blind, low vision, or deafblind and who have additional learning, language, developmental, or attention needs that affect academic progress. These students may require specialized instruction, intervention, modified pacing, related services, or increased educational support in addition to sensory-specific access services.

Assessment results should be interpreted within the context of sensory access, communication, concept development, and the impact of additional disabilities or learning needs.

- Blind Campus Student Profile 2a: Standard Diploma Pathway
 - High school or post-high students working toward a standard diploma with accommodations, specialized instruction, and transition supports as needed.
- Blind Campus Student Profile 2b: Alternate Diploma Pathway
 - High school or post-high students participating in an alternate pathway aligned to individualized goals, functional academics, transition, independence, employment, and adult living outcomes

USB Learner Profile 3: Complex Access and High-Impact Support Needs (K-2, 3-6, 9-12, PH)

Students who are blind, low vision, or deafblind and who have significant cognitive, physical, medical, communication, or multiple disabilities requiring intensive individualized support. These students receive instruction based on the Essential Elements and may use alternative communication systems and highly specialized instructional strategies delivered through a multidisciplinary team.

Assessment and instructional planning for these students focuses on meaningful access to communication, literacy, numeracy, independence, orientation and mobility, self-advocacy, and participation across environments.

Note: All of the above profiles were also applied to Outreach students which expanded the 9-12 grade band to include grades 7-12.

Appendix C: Terminology for Inventory

During the Module 4 participants were asked to record descriptive data on each assessment given to the majority of students in each learner profile and grade band. Below is a list of each descriptive category and the options available from the dropdown menus.

- **Benchmark:** Academic, Social, Autonomy, or Other
- **Specific Content:** This includes the USD and USB specific content areas under each benchmark (e.g., USD academic content areas are literacy, numeracy, and language)
- **Requirement Source:** This defined who required the assessment and options included: State, District, IEP Team, School, or Teacher
- **Primary Intended User:** State or District Leader, Teacher, or IEP Team
- **Administration Time:** Options included ten minute increments from 0 to 180 minutes.
- **Administration Window:** The time of year the test is administered. Options include a specific month, once a year, or once every three years),
- **Assessment Type:** Pre-Unit Quiz, Mid-Unit Quiz, End-of-Unit Test, Mid-Term or Final Exam, Universal Screener, Diagnostic, Mini-Summative Interim, Other Summative, and State Test
- **Assessment Format:** The response types included Mostly Selected Response, Mostly Short Written Response, Mostly Oral/Signed Responses, Mostly Longer Written Response (Essay), Performance Task(s), Mixture of Selected- and Short Constructed-Response Item Types, Parent Survey or Rating Scale, Teacher Survey or Rating Scale, Student Survey or Rating Scale, Teacher Observation or Checklist, and Parent Observation or Checklist

Table C1 provides descriptions of the types of assessment, Table C2 provides descriptions of assessment formats, and Table C3 defines the intended users.

Table C1: Type of Assessment

Category	Description	Examples
Pre-Unit Quiz	A brief assessment given before instruction begins to gauge prior knowledge and inform planning	KWL checks, curriculum embedded pre-assessment
Mid-Unit Quiz	A short assessment given partway through a unit to check progress and identify gaps	Teacher-created quizzes, curriculum-embedded quizzes
End-of-Unit Test	A summative assessment given at the conclusion of a unit to measure mastery of taught content	Unit tests, chapter tests, module assessments
Mid-Term or Final Exam	A cumulative assessment covering an extended period of learning	Semester exams, finals, portfolio assessments, capstone projects, end-of-course performance tasks
Universal Screener	A brief, standardized assessment that is administered to all students to identify students more likely to need additional support	Acadience, CogAT,
Diagnostic	A standardized assessment used to identify a student's strengths or weaknesses and/or specific areas for instructional support	Woodcock Johnson Reading subtests
Mini-Summative Interim	An interim assessment that samples content across the full content area.	District benchmark quizzes, curriculum-embedded progress checks, RISE benchmark modules, NWEA MAP, DRA
Other Summative	Assessments used to identify student progress or performance, not part of the state test, and not part of the regular curricular sequence	VCSL, Communication Matrix, ASL Narrative Fall, Literacy Skills Checklist
State Test	A standardized assessment administered at the state level for accountability purposes	RISE, DLM

Table C2: Assessment Format

Category	Description Assessments made up primarily of...	Examples
Mostly Selected Response	...items with pre-defined answer choices, such as multiple choice, drop-down, drag and drop, true/false, matching, or other electronically enhanced items	MAP Growth
Mostly Short Written Response	...brief written responses, such as short answer or short paragraph responses, fill-in-the-blank with written justification	Classroom assessments
Mostly Oral/Signed Responses	...short oral or signed responses, either recorded or graded in the moment	DIBELS Oral Reading Fluency, WIDA Speaking, Woodcock-Johnson oral subtests
Mostly Longer Written Response (Essay)	...extended written responses, such as long-form writing tasks, structured essays, narrative or argumentative writing prompts	State writing assessments, classroom assessments
Performance Task(s)	...authentic, multi-step tasks requiring application of skills, such as science lab reports, math problem-solving tasks, project-based assessments, portfolio tasks	Science fair projects, music performances
Mixture of Selected- and Short Constructed-Response Item Types	...a combination of multiple-choice and brief written items	NAEP, ACT, SAT, most district benchmark assessments
Parent Survey or Rating Scale	...structured parent input on student skills or behaviors	Vineland Adaptive Behavior Scales, BASC Parent Rating Scale, Conners Parent Rating Scale
Teacher Survey or Rating Scale	...structured teacher ratings of student skills or behaviors	BASC Teacher Scale, Conners Teacher Rating Scale, SSIS (Social Skills Improvement System)
Student Survey or Rating Scale	...student self-reports on skills, behaviors, or attitudes	BASC Self-Report, student interest inventories, social-emotional learning self-assessments
Teacher Observation or Checklist	...structured teacher observations recorded in a checklist format	Running records, developmental checklists, anecdotal observation logs,

Category	Description Assessments made up primarily of...	Examples
		curriculum-based observation tools
Parent Observation or Checklist	...structured parent observations recorded in a checklist format	Ages & Stages Questionnaires (ASQ), home behavior checklists

Table C3: Primary Intended Users

Category	Description
L1. Leader Use of State/District Test Results	Leaders use data from state- or district-required tests to: - Identify group patterns that warrant further investigation at the school or district level - Identify professional development needs at the school or district level - Inform allotment of resources (programs, coaches, support staff, support for individual teachers, curriculum, tutoring) - Evaluate effectiveness/impact of new or existing programs such as curriculum products, professional development, or other interventions - Identify students who are not proficient and may need additional testing to diagnose the problem along with support services - Identify students who would benefit from more challenging content or gifted programs - Communicate with parents, school board, and the public about the performance of either individual or groups of students
T1. Teacher Use of Classroom Summatives	Teachers use information from classroom summatives such as end-of-unit tests to: - Identify students who are struggling and need more support in future curriculum units or outside of regular instruction - Identify students who need more challenging content in future units - Identify needed modifications for future use of a specific unit - Get a broad understanding of a class's strengths and weaknesses - Match students with appropriately leveled instructional supports - Communicate with parents/caregivers/students about student performance during the school year
T2. Teacher Use of State/District Test Results	Teachers use data from state- or district-required tests to: - Get a broad understanding of a class's strengths and weaknesses - Match students with appropriately leveled instructional supports - Communicate with parents/caregivers/students about student performance during the school year
IEP: Eligibility/Goal Setting/Progress Monitoring	An IEP team member uses assessment to: - Determine eligibility for services - Evaluate/set annual IEP goals (e.g., annual IEP meeting) - Monitor student progress towards goals

Appendix D: Inventory Tool and Visualizations

The Assessment System Review Tool provided participants with data visualizations (Module 5). Figure D1 to D4 illustrates the types of summary data and data visualizations available to participants. The percent of instructional time was estimated by USDB participants and reflects different instructional priorities. For example, USD included a larger percentage of instructional time on language development than USB. Therefore, the percentages of instructional time devoted to assessments do not allow for direct comparisons between USD and USB. The tables below are shown only to illustrate the types of information available to participants. Values differed significantly depending on school and learner profile. For a summary of respondent entries by school and learner profile see Appendix E.

<i>Table 1.2. Assessment Time and Count, by Benchmark</i>			<i>Table 1.3. Assessment Time and Count, by Content Area</i>		
<i>Benchmark</i>	Total approximate testing time per student, in minutes	Count of assessments	<i>Content area</i>	Total approximate testing time per student, in minutes	Count of assessments
1. Academic	1830	35	1. Compensatory and Functional Academic Skills	150	5
2. Social	120	4	1. Literacy	660	12
3. Autonomy	240	7	1. Numeracy	480	11
Grand Total	2190	46	1. Sensory Efficiency Skills	360	6
			2. Recreation & Leisure	60	2
			2. Social Interaction Skills	60	2
			3. Career Education	60	2
			3. Independent Living Skills	60	2
			3. Orientation & Mobility	60	1
			3. Self Determination	60	2
			4. Other	180	1
			Grand Total	2190	46

Figure D1. Tables 1.2 to 1.3 presented information on the number of assessments and number of total minutes spent testing, by benchmark.

Table 1.4. Total approximate testing time per student, in Minutes by Benchmark and Month									
Approximate month of the year administered									
Benchmark	01. August	02. September	05. December	09. April	10. May	As Requested	IEP 1x every 3 years	IEP 1x every year	Grand Total
1. Academic	60	170	30	150	270		140	200	1020
2. Social						30		20	50
3. Autonomy						0			0
4. Other		40		40		240			320
Grand Total	60	210	30	190	270	270	140	220	1390

Table 1.5. Percentage of Instructional Time by Content Area						
	Literacy	Numeracy	Language	Social	Autonomy	All Content Areas in this document
Percentage of instructional time	2.27%	2.22%	0.71%	0.93%	0.00%	

Table 1.6. Assessment Count by Benchmark and Month									
Approximate month of the year administered									
COUNT of assessment	01. August	02. September	05. December	09. April	10. May	As Requested	IEP 1x every 3 years	IEP 1x every year	Grand Total
1. Academic	3	4	1	5	5		3	7	28
2. Social						9		1	10
3. Autonomy						4			4
4. Other		1		1		4			6
Grand Total	3	5	1	6	5	17	3	8	48

Figure D2. Tables 1.4, 1.5, and 1.6 display the minutes and count of assessments administered across different benchmarks, by month.

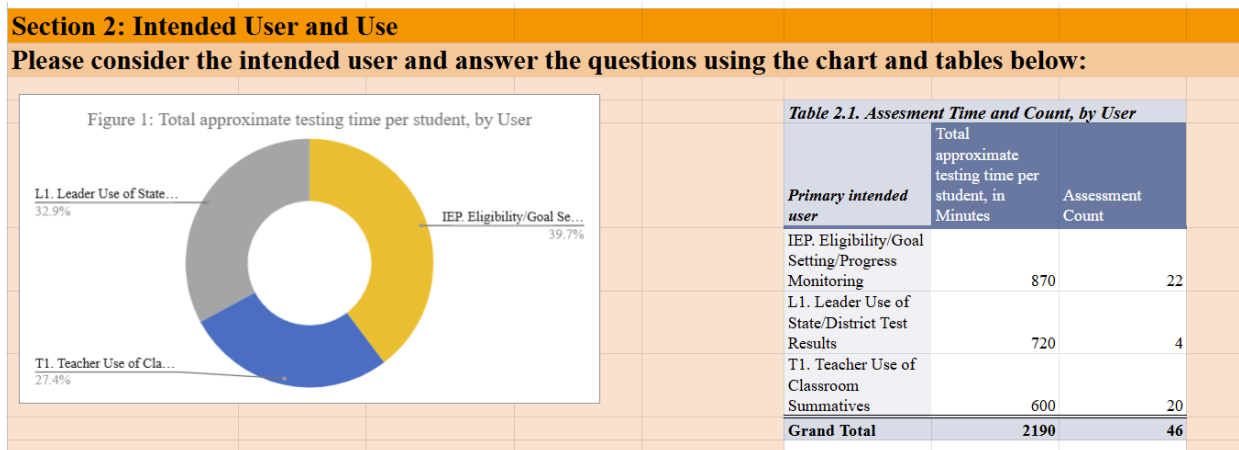


Figure D3. “Intended User and Use” for USB grade 3-6 students with Additional Learning Needs (USB Type 2 Learner Profile)

Section 3: Format/Item and Assessment Type

Please consider the item/assessment type distribution and answer the questions using the charts and tables below:

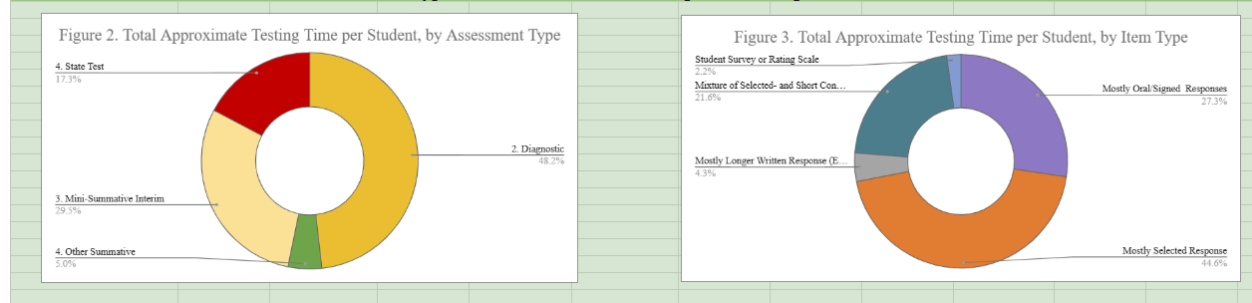


Figure D4. “Format and Assessment Type” for USD grade 3-6 students with Age-Appropriate Language and Academic Skills

Appendix E: Reflections Across Inventory

Summary matrices of what USD and USB teams said in reflection about the collection of assessments administered to each learner profile, organized by learner profile (rows) and grade band (columns) across the three reflection topics: (1) Timing and Balance, (2) Redundancy and User Utility, and (3) Coherence with the Instructional Vision. Each cell summarizes the meaning of the team's reflection, and refers to assessments by type (for example, reading, vision, or communication assessments) rather than by name.

Reading the cells. A lavender cell reading “Same text as ...” means the team entered text identical to the referenced cell; see that cell for the content. A gray cell means no entry was recorded in the workbook. While USB completed separate workbooks for school-based and outreach students, the USB tables reflect the school-based workbook only; USD had no Module 5 tabs for Post-High and no K–2 Type 4 tab.

Each table summarizes the following reflections by school.

- Reflection Topic 1 — Timing and Balance: Balance across academic, social, and autonomy benchmarks; beginning- vs. end-of-year volume; and what could be reduced.
- Reflection Topic 2 — Redundancy and User Utility: Whether leaders, IEP teams, and teachers receive duplicative information, and whether the right information reaches each user.
- Reflection Topic 3 — Coherence with the Instructional Vision: Whether the mix of assessments and item formats supports or works against USDB's instructional vision.

Table E1: USD: Reflection Topic 1 — Timing and Balance

Learner Profile	K–2	3–6	7–12
Type 1 — Age-appropriate language and academic skills	Respondents noted that assessments concentrate on academic areas, with little formal measurement of social and well-being domains, and suggested adding a measure in those areas. Testing is heaviest in September and April, at the beginning and end of the year; individually scheduled IEP testing can add strain when it falls in those already heavy months.	For this group, timing and assessment-burden concerns were tied less to the overall calendar and more to redundant information. Respondents recommended discontinuing an expressive-language assessment for students who are already performing on level.	Respondents framed the concern as gaps rather than excess, noting a need for a social-skills assessment and for transition and autonomy assessments for this group. Testing was heavier at the beginning and end of the year (8 beginning-of-year and 13 end-of-year assessments); respondents recommended removing the state summative assessment for these students and resetting IEP dates so that IEP testing does not compound the heavy months.
Type 2 — Delayed language	Respondents noted that social and autonomy areas have few assessments and would like measures added. Assessment minutes were described as fairly evenly distributed overall, but heavier at the beginning and end of the year; IEP testing may overlap with these high-testing months, and respondents suggested resetting IEP timelines to reduce the overlap.	The spread of assessments was seen as generally matching goals, with minimal social and autonomy measures considered acceptable given small class sizes that let staff identify needs informally. Respondents recommended continuing an expressive-language assessment only for specific students until it is no longer needed.	Respondents identified a need for a social-skills assessment and for transition and autonomy assessments for this group. Testing was heavier at the beginning and end of the year (9 beginning-of-year and 10 end-of-year assessments); they recommended removing the state summative assessment for these students and resetting IEP dates to avoid overlap.
Type 3 — Language deprivation	Same text as Type 2, K–2.	Respondents felt this group needs more social and behavioral assessment, noting that many students arrive from other countries and are learning both American culture and language. For timing, they recommended removing grade-level state and benchmark academic assessments, which they felt may not justify the time required.	Respondents identified a need for a social-skills assessment and for transition and autonomy assessments, and described the volume of testing as too much. Testing was heavier at the beginning and end of the year (9 beginning-of-year and 10 end-of-year assessments); they recommended removing the state summative assessment for these

			students and resetting IEP dates to avoid overlap.
Type 4 — Deaf-disabled / complex needs	No separate K–2 Type 4 reflection tab was included in the workbook.	Same text as Type 3, 3–6.	Respondents identified a need for a social-skills assessment and for transition and autonomy assessments for this group. Testing was lighter than for the other secondary groups (4 beginning-of-year and 5 end-of-year assessments); respondents suggested resetting IEP dates so that IEP testing does not overlap the heavy months, but did not recommend removing the state summative assessment as they did for the other groups.

Table E2: USD: Reflection Topic 2 — Redundancy and User Utility

Whether leaders, IEP teams, and teachers receive duplicative information, and whether the right information reaches each user.

Learner Profile	K–2	3–6	7–12
Type 1 — Age-appropriate language and academic skills	Redundancy concerns centered on fit rather than duplication. A phonics-based reading assessment was seen as inappropriate for deaf learners and not usable for program-level decisions, while a teacher-administered reading assessment did inform decisions. Respondents recommended dropping the phonics-based reading assessment at this level but keeping the math assessment. Utility for IEP teams and teachers was not addressed.	Respondents identified genuine overlap, describing grade-level state and benchmark academic assessments as giving similar, very general information. They treated the overlap as tolerable across users, however: IEP teams valued it as a set of checks and balances, and teachers could compare the results against their own classroom instruction.	Respondents said leaders rely on the academic benchmark assessment to place students in the right instructional groups but rarely use the state summative assessment. Across leaders, IEP teams, and teachers, the consistent message was a gap rather than duplication — a need for better data on transition and social skills for this group.

Type 2 — Delayed language	Respondents judged usefulness by user. Leaders could track general progress but gained little curriculum-specific or programmatic insight, while IEP teams and teachers — particularly once formative classroom data was added — felt they received the information they needed. This points to a mismatch with leader-level decisions rather than simply too much testing.	Same text as Type 1, 3–6.	Same text as Type 1, 7–12.
Type 3 — Language deprivation	Respondents felt the assessments yield general progress information rather than curriculum-specific direction; language assessments, when given, provided the desired information. IEP teams and teachers considered their needs met, particularly once formative classroom data was included.	Concerns centered on how results are used and framed rather than duplication. Leaders used results mainly to place students in more language-supported settings, and IEP teams turned the information into prioritized goals. Teachers noted that the grade-level framing communicated to families can understate progress and does not foreground sign-language development.	Same text as Type 1, 7–12.
Type 4 — Deaf-disabled / complex needs	No separate K–2 Type 4 reflection tab was included in the workbook.	Same text as Type 3, 3–6.	Respondents said leaders look mainly at the alternate state assessment for this group but felt it does not accurately represent the whole child. IEP teams and teachers reported needing more information on transition and social skills.

Table E3: USD: Reflection Topic 3 — Coherence with the Instructional Vision

Learner Profile	K–2	3–6	7–12
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Type 1 — Age-appropriate language and academic skills	Respondents felt the range of assessment formats aligns with the instructional vision, and viewed the high level of diagnostic testing as appropriate given the school's focus on identifying needs (few screeners are expected, since students are usually screened before they arrive). Their main question was whether the system captures the right information, pointing specifically to a lack of measures for social and well-being domains.	Respondents felt that gathering multiple sources of data supports the instructional vision, but questioned whether staff can combine it into a usable picture of the student. Grade-level academic assessments were seen as testing narrow skills not always reflective of student learning, and a teacher-administered reading assessment was noted as pulling teachers away from instruction — a delivery burden that could be eased by training more staff to administer it.	Respondents said teachers rely on assessment data to confirm that their instructional strategies are working and students are learning. Working against the vision, however, grade-level benchmark and state academic assessments were seen as measuring narrow skills not always reflective of what students need or are learning.
Type 2 — Delayed language	Same text as Type 1, K–2.	Same text as Type 1, 3–6.	Same text as Type 1, 7–12.
Type 3 — Language deprivation	Same text as Type 1, K–2.	Respondents felt the collection of assessments is broadly aligned with the instructional vision but hard to synthesize, and recommended removing grade-level academic assessments as poorly matched for this group. They noted the teacher-time cost of administering a reading assessment.	Same text as Type 1, 7–12.
Type 4 — Deaf-disabled / complex needs	No separate K–2 Type 4 reflection tab was included in the workbook.	Same text as Type 3, 3–6.	Respondents said teachers rely on assessment data to confirm their instructional strategies are working. Working against the vision, they felt this group would benefit from more transition-based assessments, and that the alternate state assessment they currently take is not a true measure of their abilities.

Table E4: USB: Reflection Topic 1 — Timing and Balance

Learner Profile	K–2	3–6	9–12	Post-High
Type 1 — Grade-level academic access	The distribution of assessments was seen as appropriate and well aligned to the Expanded Core Curriculum, with testing windows fitting the school year and IEP cycle. Respondents located the burden on teachers rather than students — many measures are brief checklists that take little student time but are numerous to administer — and suggested shifting some twice-yearly assessments to once a year.	The distribution of assessments was seen as appropriate and aligned to the Expanded Core Curriculum. Respondents added that mandated state testing consumes significant time and concentrates assessment in the spring, with relief currently depending only on families choosing to opt out, which they described as happenstance rather than policy. The burden fell more on teachers than students.	Respondents judged the overall load (about 15% of instructional time) as high but reasonable for this group, and testing as balanced across the year. They noted that the inventory tool likely overstates minutes, because its smallest time increment was longer than many of the brief assessments actually take.	<i>Same text as Type 1, 9–12.</i>
Type 2 — Additional learning needs	The distribution of assessments was seen as appropriate and aligned to the Expanded Core Curriculum, with the load falling more on teachers than students.	Respondents addressed only the distribution question, giving the same response as Type 1, 3–6. Assessment volume and possible eliminations were not addressed for this group.	<i>Same text as Type 1, 9–12.</i>	<i>Same text as Type 1, 9–12.</i>

Learner Profile	K–2	3–6	9–12	Post-High
Type 3 — Complex access and high-impact support	For this group, the assessment mix was seen as matching the complex, individualized nature of instruction, and its volume as justified: respondents said the most time-intensive assessments — vision, learning-media, and orientation-and-mobility measures — each serve a distinct diagnostic purpose and cannot be combined. They also noted a newly created math progress-monitoring assessment for complex learners, with a literacy version in development.	The assessment mix was seen as matching the complex, individualized nature of instruction, with volume judged justified given the population's needs. Respondents added that mandated alternate state testing concentrates assessment in the spring and is currently offset only by families opting out.	<i>No reflection was recorded for this group.</i>	<i>No reflection was recorded for this group.</i>

Table E5: USB Reflection Topic 2 — Redundancy and User Utility

Learner Profile	K–2	3–6	9–12	Post-High
Type 1 — Grade-level academic access	Respondents reported little duplication. Most assessments serve IEP teams, with only a small, non-overlapping set aimed at leaders (chiefly a twice-yearly braille readiness measure), and the complementary measures were seen as producing a coherent picture of the student rather than redundant information. Teachers, who are largely the same IEP-team members, felt well served.	<i>Same text as Type 1, K–2.</i>	Respondents considered the main use of the assessments to be for IEP team members and teachers, not for school leaders. Respondents noted that, because the IEP team sees itself as part of leadership, the apparent absence of leader-facing assessments may reflect how “users” are defined. They suggested that more IEP data could potentially be rolled up for district purposes.	<i>Same text as Type 1, 9–12.</i>

Type 2 — Additional learning needs	Vision and communication assessments were named as supporting both IEP teams and teachers. Respondents said these assessments add critical data that would otherwise be missing, and that their parent-and-teacher design captures the student across home and school. Teachers use them to make direct instructional adjustments — for vision, changes such as lighting, visual field, and complexity; for communication, developing communication goals — and a literacy checklist provides a baseline for students who are not braille candidates. Respondents also flagged that the vision assessment, when used for reporting, is subjective and varies by rater and by the student's day.	<i>No reflection was recorded for this group.</i>	<i>Same text as Type 1, 9–12.</i>	<i>Same text as Type 1, 9–12.</i>
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Type 3 — Complex access and high-impact support	Observation- and checklist-based assessments were seen as essential and non-duplicative, since standardized measures are often inaccessible for this population. The gap respondents identified was not redundancy but the absence of a way to show standards-based literacy progress, along with a need to help leaders interpret data in the context of complex access needs.	<i>Same text as Type 3, K–2.</i>	<i>No reflection was recorded for this group.</i>	<i>No reflection was recorded for this group.</i>
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Table E6: USB Reflection Topic 3 — Coherence with the Instructional Vision

Learner Profile	K–2	3–6	9–12	Post-High
Type 1 — Grade-level academic access	Consensus that the assessments strongly support the instructional vision. Teacher observations, checklists, and performance tasks were most prevalent, and were believed to align with the needs of specialized instruction. The team suggested that some braille assessments are not well aligned for all students.	<i>Same text as Type 1, K–2.</i>	Respondents saw the mix of frequent formative and diagnostic measures as aligning with the student-centered Bridges program. They noted that observation-based formats — checklists, rating scales, and performance tasks — can overlap, because the same behavior is performed, observed, and rated, and that some teacher-administered assessments may be missing from the inventory.	<i>Same text as Type 1, 9–12.</i>
Type 2 — Additional learning needs	The collection of assessments was seen as supporting the instructional vision, with parent-and-teacher rating scales reflecting its emphasis on family partnership. Respondents' suggested improvements were structural: administer key assessments on a consistent schedule rather than only at IEP time, and clarify how students transition to more advanced	<i>No reflection was recorded for this group.</i>	<i>Same text as Type 1, 9–12.</i>	<i>Same text as Type 1, 9–12.</i>

Learner Profile	K–2	3–6	9–12	Post-High
	literacy assessments as their skills grow.			
Type 3 — Complex access and high-impact support	The collection of assessments was seen as strongly reflecting the instructional vision's emphasis on individualized, family-partnered instruction, with parent input and functional, context-based measures central. The main gap respondents identified was the absence of a structured assessment for sensory processing, tactile access, and body awareness.	<i>Same text as Type 3, K–2.</i>	<i>No reflection was recorded for this group.</i>	<i>No reflection was recorded for this group.</i>

Appendix F: Tests Recommended for Removal

USD: Tests Recommended for Removal

The USD removal recommendations were broad and varied by learner profile and grade band. In K–2, several assessments were recommended for elimination, including MAP Reading fall and winter administrations, BRACKEN, PPVT, EVT, and the ASL Academic Comprehension Test for Deaf Disabled students. These recommendations suggest concerns about fit, redundancy, or usefulness for particular early-grade learner profiles.

In grades 3–6, the removal recommendations focused heavily on MAP, RISE, and Language Sample assessments. For students with delayed language and language deprivation, multiple grade-level academic assessments were recommended for removal, including RISE Reading, Writing, Math, and Science, as well as MAP Reading, MAP Language, and MAP Science. Language Sample was recommended for replacement across several groups, suggesting that respondents may still value language evidence but want a better-aligned or more useful process.

In grades 7–12, RISE assessments were recommended for replacement for students with age-appropriate language and academic skills, delayed language, and language deprivation. For Deaf Disabled students, IXL ELA Diagnostic and IXL Math Diagnostic were recommended for elimination without replacement. At the post-high-school level, the Developmental Reading Assessment was recommended for elimination for students with language deprivation. Overall, the USD removal table indicates a stronger need than USB for targeted assessment reduction, especially where assessments are poorly matched to students' language profiles or provide limited instructional value.

Table F1: Tests Recommended for Removal or Replacement (USD)

Student Profile	Eliminate and Remove	Eliminate and Replace	Unique Tests to Remove	Test Events to Remove
USD: K-2 Age-appropriate Language and Academic Skills (Type 1)	• MAP - Reading (Fall and Winter only)	• BRACKEN	2	3
USD: K-2 Delayed Language (Type 2)	• BRACKEN • EVT • MAP - Reading (Fall and Winter) • PPVT		4	5
USD: K-2 Language Deprivation (Type 3)	• BRACKEN • MAP - Reading (Fall and Winter)		2	3
USD: K-2 Deaf Disabled (Type 4)	• ASL Academic Comprehension Test - Fall • ASL Academic Comprehension Test - Spring		2	2
USD: 3-6 Age-appropriate Language and Academic Skills (Type 1)	• MAP Science	• Language Sample	2	3
USD: 3-6 Delayed Language (Type 2)	• MAP Science • RISE - Math • RISE - Reading • RISE - Writing	• Language Sample	6	7

Student Profile	Eliminate and Remove	Eliminate and Replace	Unique Tests to Remove	Test Events to Remove
	• RISE- SCIENCE			
USD: 3-6 Language Deprivation (Type 3)	• MAP - Language • MAP - Reading (All) • MAP Science (All) • RISE - Math • RISE - Reading • RISE - Writing • RISE- Science	• Language Sample	8	11
USD: 3-6 Deaf Disabled (Type 4)		• Language Sample	1	1
USD: 7-12 Age-appropriate Language and Academic Skills (Type 1)		• RISE - Math • RISE - Reading • RISE - Writing • RISE-Science	4	4
USD: 7-12 Delayed Language (Type 2)		• RISE - Math • RISE - Reading • RISE - Writing	3	3
USD: 7-12 Language Deprivation (Type 3)		• RISE - Math • RISE - Reading • RISE - Writing	3	3

Student Profile	Eliminate and Remove	Eliminate and Replace	Unique Tests to Remove	Test Events to Remove
USD: 7-12 Deaf Disabled (Type 4)	• IXL ELA Diagnostic • IXL Math Diagnostic		2	4
USD: Post HS Language Deprivation (Type 3)	• Developmental Reading Assessment		1	6

Note: The number of testing events to remove exceeds the number of unique tests because some assessments are designed to be administered more than once per year. For example, in some cases the MAP assessments were recommended for removal in Fall and Winter but not Spring, because they are used by school leaders for accountability but not used by teachers.

USB Tests Recommended for Removal

The tests recommended for removal show different patterns for USD and USB. For USD, removal recommendations were broader and included multiple assessments across grade bands and learner profiles, including MAP, BRACKEN, PPVT, EVT, RISE, Language Sample, IXL diagnostics, ASL Academic Comprehension, and Developmental Reading Assessment. Some assessments were recommended for elimination without replacement, while others were recommended for replacement, suggesting a mix of redundancy, poor fit, and unmet assessment needs.

For USB, removal recommendations were much narrower. Only five test events were recommended for removal, and all involved Braille Curriculum Based Measurement. In each case, the recommendation was to eliminate and replace, not to eliminate without replacement. This pattern suggests that USB respondents continue to see a need to assess braille-related skills, but that the current Braille Curriculum Based Measurement process should be replaced with a more consistent, standardized, or better-aligned approach across student groups.

Table F2: Tests Recommended for Removal or Replacement (USB)

Learner Profile	Eliminate and Remove	Eliminate and Replace	Unique Tests to Remove	Test Events to Remove
USB: K-2 Grade-Level Academic Access (Type 1)		• Braille Curriculum Based Measurement	1	1
USB: 3-6 Grade-Level Academic Access (Type 1)		• Braille Curriculum Based Measurement	1	1
USB K-2 Additional Learning Needs (Type 2)		• Braille Curriculum Based Measurement	1	1
USB: 3-6 Additional Learning Needs (Type 2)		• Braille Curriculum Based Measurement	1	1
USB: 3-6 Complex Access and High-Impact Support Needs (Type 3)		• Braille Curriculum Based Measurement	1	1

Appendix G: USD Summary Tables and Figures

Table G1 displays the approximate number of minutes students in different profiles spend testing, by month of the school year. For example, the table indicates that K-2 students who are able to participate in age-appropriate language and academics spend about 80 minutes testing in August, the first month of the school year across all content areas.

Table G1: Minutes Spent Testing by Student Profile and Month of the School Year

Grade / Instructional type	Period administered											
	Aug	Sept	Nov	Dec	Jan	Mar	April	May	As Request	IEP 1x yearly	IEP 1x 3 years	Grand Total
K-2 Age-appropriate Language and Academic Skills (Type 1)	80	90	10	30	10	10	110	40	300	230	20	930
K-2 Delayed Language (Type 2)	60	90	10	30	10	10	110	40	290	230	20	900
K-2 Language Deprivation (Type 3)	60	80	–	30	–	–	110	30	290	110	–	710
K-2 Deaf Disabled (Type 4)	50	–	–	30	–	–	20	30	290	50	20	490
3-6 Age-appropriate Language and Academic Skills (Type 1)	60	210	–	30	–	–	190	270	270	220	140	1,390
3-6 Delayed Language (Type 2)	60	210	–	30	–	–	190	270	300	220	140	1,420
3-6 Language Deprivation (Type 3)	60	210	–	30	–	–	190	270	300	100	140	1,300
3-6 Deaf Disabled (Type 4)	60	60	–	30	–	–	30	180	300	110	20	790
7-12 Age-appropriate Language and Academic Skills (Type 1)	60	280	–	70	–	610	190	430	330	310	140	2,420
7-12 Delayed Language (Type 2)	60	280	–	30	–	400	190	210	330	320	140	1,960
7-12 Language Deprivation (Type 3)	60	280	–	30	–	–	190	210	360	170	140	1,440
7-12 Deaf Disabled (Type 4)	50	120	–	30	–	–	20	180	360	170	20	950
Post HS Language Deprivation (Type 3)	80	–	–	60	–	–	20	60	330	100	20	670
Post HS Deaf Disabled (Type 4)	20	–	–	–	–	–	20	–	330	60	20	450

Average (across grades/types)	58.6	136.4	1.4	32.9	1.4	73.6	112.9	158.6	312.9	171.4	70	1,130.00
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The bottom row of Table 1E displays the average minutes testing by month across all groups, though there is substantial variability across student age groups and learner profiles. Notably, students in all groups spend more time testing in the beginning and the end of the year.

The grand total on the right hand side sums all the minutes across the school year. The value should be interpreted with caution, however, as not all students take assessments listed as “As Requested” or “IEP 1x every year” or “IEP 1x every 3 years.”

Table G2: Number of Assessments Administered by Student Profile, by Content Area (IEP 1x 3 years and As Requested Assessments Removed)

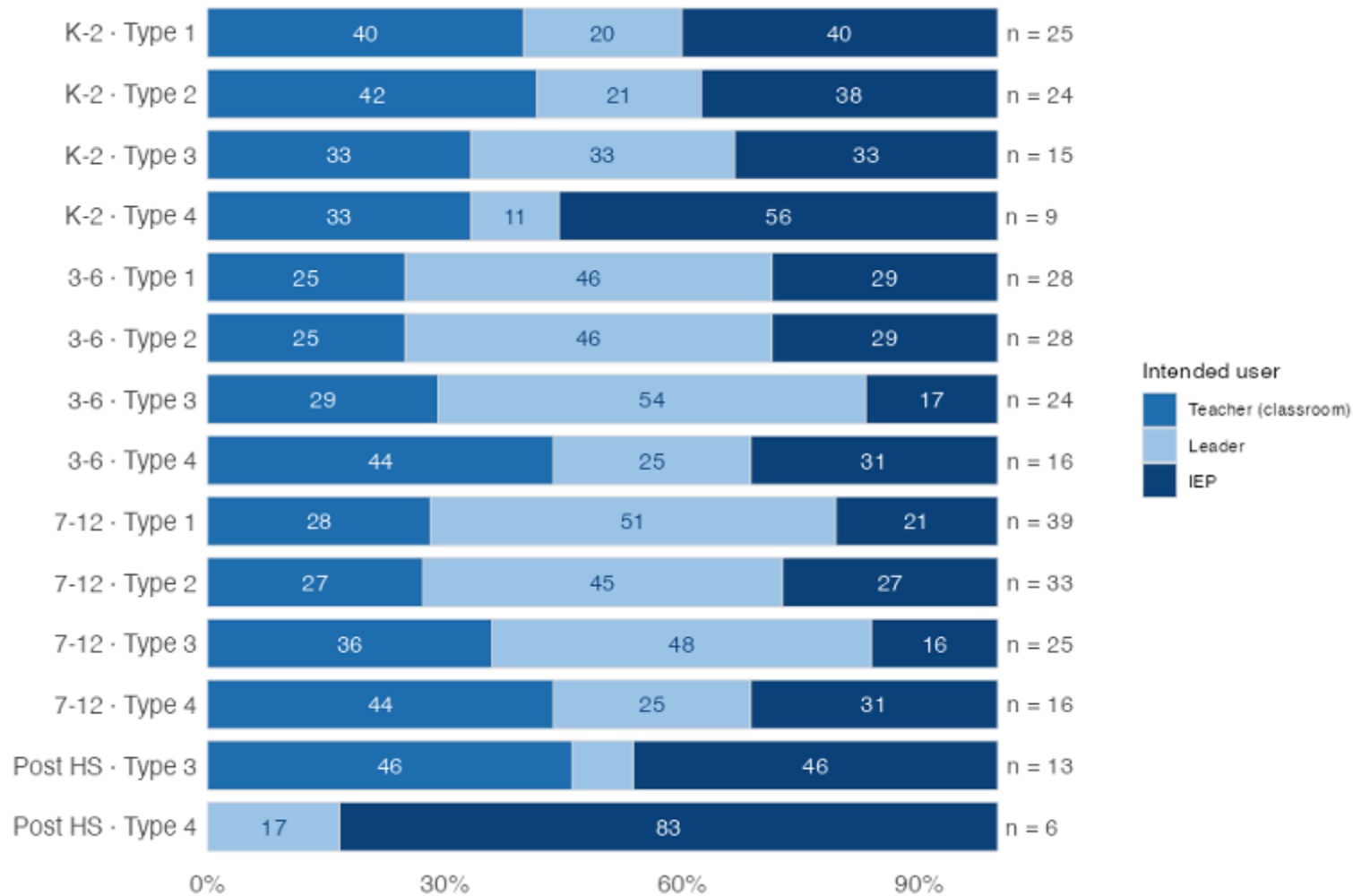
Grade / Instructional type	Content area							Total
	Language	Literacy	Numeracy	Communi- cation	Well Being	Independent Living Skills	Other	
K-2 Age-appropriate Language and Academic Skills (Type 1)	11	11	2	1	—	—	—	25
K-2 Delayed Language (Type 2)	10	11	2	1	—	—	—	24
K-2 Language Deprivation (Type 3)	7	6	2	—	—	—	—	15
K-2 Deaf Disabled (Type 4)	6	3	—	—	—	—	—	9
3-6 Age-appropriate Language and Academic Skills (Type 1)	10	9	5	1	—	—	3	28
3-6 Delayed Language (Type 2)	10	9	5	1	—	—	3	28
3-6 Language Deprivation (Type 3)	7	9	5	—	—	—	3	24
3-6 Deaf Disabled (Type 4)	8	4	3	—	—	—	1	16
7-12 Age-appropriate Language and Academic Skills (Type 1)	9	15	7	1	—	1	6	39
7-12 Delayed Language (Type 2)	10	13	5	1	—	1	3	33
7-12 Language Deprivation (Type 3)	7	11	5	—	—	—	2	25
7-12 Deaf Disabled (Type 4)	6	6	3	—	—	—	1	16
Post HS Language Deprivation (Type 3)	6	6	—	—	—	1	—	13
Post HS Deaf Disabled (Type 4)	5	—	—	—	—	1	—	6

* Excludes on-request and every-3-year IEP assessments

Table G2 provides a count of the number of assessments administered in each content area. The count reflects the total number of assessments administered at any point, such that if the same assessment was administered three times during the year the count for that assessment would be three. Assessments that are administered “IEP 1x every 3 years” or those administered “As Requested” were removed, as not all students take the specified assessments.

Across learner profiles, assessments are primarily concentrated in language and literacy. There are fewer numeracy assessments administered. In addition, the number of assessments administered is much lower for students who fit the Deaf Disabled profile (profile 4).

Figure G1: Percentage of Assessments by Primary Intended User, by Student Profile



* Excludes on-request and every-3-year IEP assessments

Figure G1 displays the percentage of assessments within each learner profile whose primary use is designated for the specified user. For example, 21% of assessments administered to K-2 Profile 1 students are primarily intended for teacher use. Each bar sums to 100%, and is set out of the total number of assessments administered to that group of students, represented by the n count to the right of each bar. Assessments that were marked as “As Requested” and “IEP 1x every 3 years” are not included in the counts, as not all students take those assessments. Across most assessments there is a relatively even split between assessments designed for each user.

Table G3: Number of Assessments Administered by Assessment Format, by Student Profile

Grade / Instructional type	Assessment format				
	Oral/ Signed	Selected Resp (SR)	Long Written Resp	Teacher Observation	Selected Resp- + short-CR
K-2 Age-appropriate Language and Academic Skills (Type 1)	20	5			
K-2 Delayed Language (Type 2)	19	5			
K-2 Language Deprivation (Type 3)	10	5			
K-2 Deaf Disabled (Type 4)	7	1		1	
3-6 Age-appropriate Language and Academic Skills (Type 1)	13	14	1		
3-6 Delayed Language (Type 2)	13	14	1		
3-6 Language Deprivation (Type 3)	9	14	1		
3-6 Deaf Disabled (Type 4)	9	6		1	
7-12 Age-appropriate Language and Academic Skills (Type 1)	14	22	1		2
7-12 Delayed Language (Type 2)	14	18	1		
7-12 Language Deprivation (Type 3)	9	15	1		
7-12 Deaf Disabled (Type 4)	7	8		1	
Post HS Language Deprivation (Type 3)	11	2			
Post HS Deaf Disabled (Type 4)	5			1	

* Table excludes on-request and every-3-year IEP assessments

Table G3 displays the number of assessments given to each learner profile by assessment format. Assessments that were marked as “As Requested” and “IEP 1x every 3 years” are not included in the counts, as not all students take those assessments. Not all possible assessment formats are included here, as some formats were not selected by teachers. In addition, the format titles in the figure have been shortened to allow for easier reading of the figure. All of the format options are listed below:

- Mixture of Selected- and Short Constructed-Response Item Types → SR + short-CR,
- Mostly Longer Written Response (Essay) → Long Written Resp
- Mostly Oral/ Signed Responses → Oral/ Signed
- Mostly Short Written Response → Short Written Resp
- Mostly Selected Response → Selected Resp (SR)
- Performance Task → Performance
- Teacher Observation or Checklist → T Observation
- Teacher Survey or Rating Scale → Teacher Survey
- Parent Survey or Rating Scale → Parent Survey
- Student Survey or Rating Scale → Student Survey
- Parent Observation or Checklist → P Observation

Appendix H: USB Summary Tables and Figures

Table H1: Minutes Spent Testing by Student Profile and Month of the School Year

Grade / Instructional type	Period administered												Grand Total
	Au g	Sept	Oct	Nov	De c	Jan	Mar	April	May	As Reques t	IEP 1x yearly	IEP 1x 3 years	
K-2 Grade-Level Academic Access (Type 1)	60	330	90	60	60	60	60	60	270	150	270	–	1,470
K-2 Additional Learning Needs (Type 2)	60	510	210	60	60	60	60	60	360	60	270	–	1,770
K-2 Complex Access and High-Impact Support Needs (Type 3)	–	270	120	–	–	–	–	–	210	240	90	180	1,110
3-6 Grade-Level Academic Access (Type 1)	60	240	90	60	60	60	60	60	270	780	270	–	2,010
3-6 Additional Learning Needs (Type 2)	60	240	180	60	60	60	60	60	360	780	270	–	2,190
3-6 Complex Access and High-Impact Support Needs (Type 3)	–	60	90	–	–	–	–	–	150	540	30	180	1,050
9-12 Grade-Level Academic Access (Type 1)	530	310	460	310	310	510	270	270	420	390	320	60	4,160
9-12 Additional Learning Needs (Type 2)	530	310	550	310	310	510	270	270	540	390	440	240	4,670
Post HS Grade-Level Academic Access (Type 1)	410	310	460	310	310	390	270	270	420	270	320	60	3,800
Post HS Additional Learning Needs (Type 2)	530	310	580	310	310	510	270	270	540	390	440	240	4,700
Average (across grades/types)	224	289	283	148	148	216	132	132	354	399	272	96	2,693.0

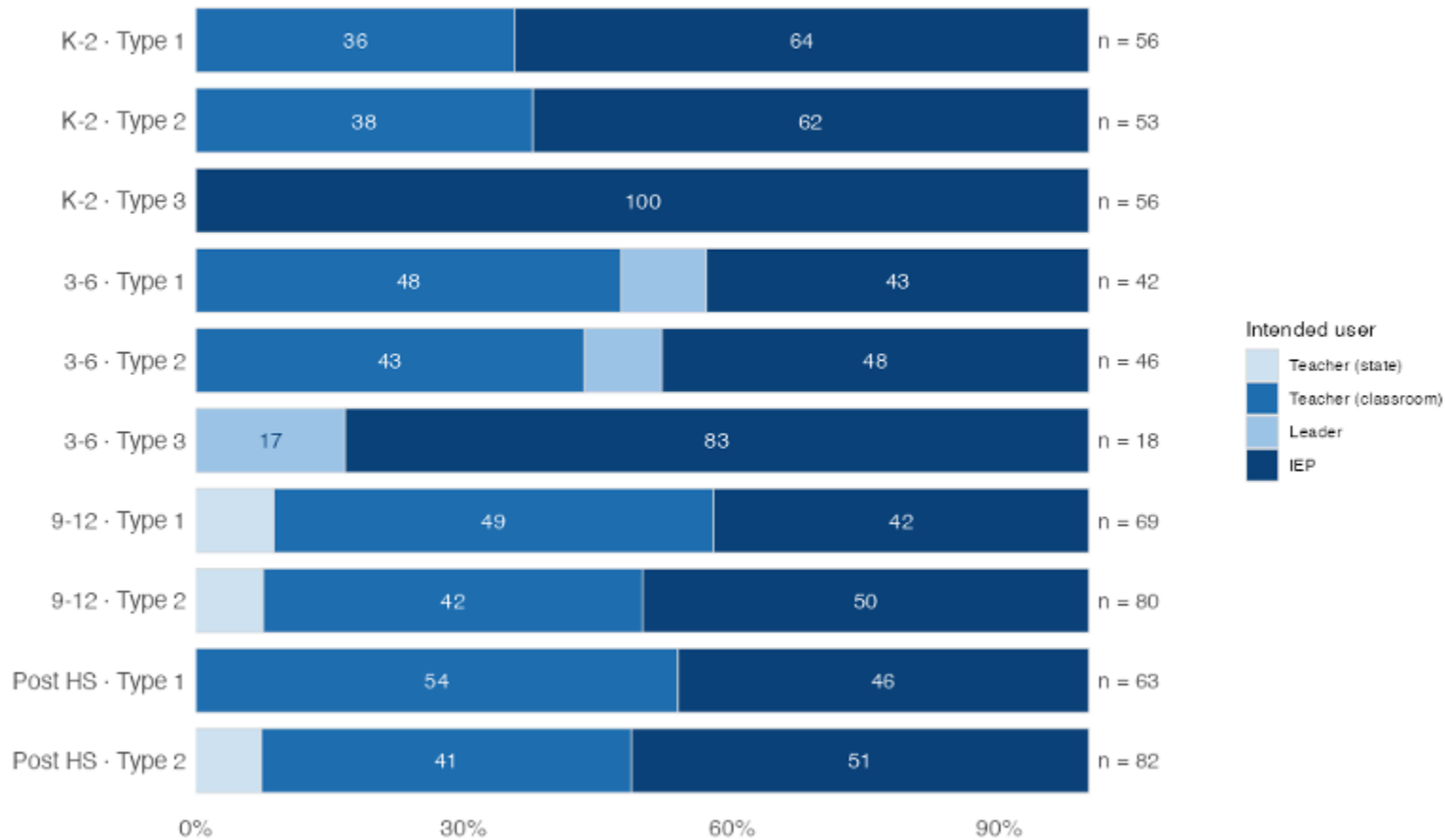
Table H2: Number of Assessments Administered by Student Profile, by Content Area (IEP 1x 3 years and As Requested Assessments Removed)

Grade / Instructional type	Content area													Total
	Com m- (Acad emic)	Funct ional Acad emic	Litera cy	Nume racy	Senso ry Effici ency	Assist ive Tech-	Rec and Leisu re	Socia l Intera ction	Caree r Educ ation	Indep - Livin g Skills	Orien tation & Mobil ion	Self Deter minat ion	Other	
K-2 Grade-Level Academic Access (Type 1)	–	7	10	10	4	2	4	4	4	4	3	4	–	56
K-2 Additional Learning Needs (Type 2)	1	6	10	10	7	1	3	3	4	3	2	3	–	53
K-2 Complex Access and High-Impact Support Needs (Type 3)	4	6	3	2	10	4	4	4	4	4	5	4	2	56
3-6 Grade-Level Academic Access (Type 1)	–	5	12	11	2	–	2	2	2	2	1	2	1	42
3-6 Additional Learning Needs (Type 2)	–	5	12	11	6	–	2	2	2	2	1	2	1	46
3-6 Complex Access and High-Impact Support Needs (Type 3)	4	3	2	1	6	–	–	–	–	–	1	–	1	18
9-12 Grade-Level Academic Access (Type 1)	–	5	10	6	4	12	3	3	17	3	3	3	–	69

9-12 Additional Learning Needs (Type 2)	3	8	11	6	8	12	3	3	16	3	4	3	—	80
Post HS Grade-Level Academic Access (Type 1)	—	5	10	—	4	12	3	3	17	3	3	3	—	63
Post HS Additional Learning Needs (Type 2)	4	8	11	6	8	12	3	3	17	3	4	3	—	82

* Excludes on-request and every-3-year IEP assessments

Figure H1: Percentage of Assessments by Primary Intended User, by Student Profile



* Excludes on-request and every-3-year IEP assessments

Table H3: Number of Assessments Administered by Assessment Format, by Student Profile

Grade / Instructional type	Assessment format								
	Teacher Obs-	Perform- Task	Teacher Survey	Student Survey	Selected Resp (SR)	Parent Survey	Oral/ Signed	Short Written Resp	Long Written Resp
K-2 · Type 1	36	20	0	0	0	0	0	0	0
K-2 · Type 2	27	20	3	0	1	2	0	0	0
K-2 · Type 3	8	0	42	0	0	4	0	0	0
3-6 · Type 1	18	20	0	0	3	0	0	0	1
3-6 · Type 2	18	20	2	0	3	2	0	0	1
3-6 · Type 3	7	0	4	0	3	4	0	0	0
9-12 · Type 1	31	22	0	6	3	0	6	1	0
9-12 · Type 2	36	22	3	6	2	4	6	1	0
Post HS · Type 1	31	22	0	6	3	0	0	1	0
Post HS · Type 2	36	22	4	6	3	4	6	1	0

* Table excludes on-request and every-3-year IEP assessments

UTAH STATE BOARD OF EDUCATION

Subject:

INFORMATION: Summary of Actions

Agenda item type:

Information Item

Recommended Action:

No action.

Purpose of Memo:

Other

Background:

Summary of actions for the most recent Utah Schools for the Deaf and the Blind Committee Meeting.

Contact:

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Leah Voorhies

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Attachments:

1. 06-09-2026 USDB Standing Committee - Summary of Actions

Date: June 9, 2026



The meeting was conducted virtually via Zoom. [Link to YouTube recording.](#)

Members Present: Chair LeAnn Wood, Vice Chair Randy Boothe, Member Cindy Davis, Member Joann Brinton, and Member Erin Longacre.

USDB Committee Staff: Darin Nielsen, USDB Superintendent; Susan Patten and Michelle Tanner, USDB Associate Superintendents; Darin Goff Assistant Attorney General (AAG); Leah Voorhies, USBE Deputy Superintendent; Andrea Curtin, Secretary; Cindy Andersen and Bethany Anderson, Interpreters.

Others Present: Jerry Record and Alex Farah, USBE IT/Media Production Specialists; Jennifer Wadsworth, Policy Advisor; Kate Borg, USDB staff; Alex Westergard, Alisa Ensign, Kellsey Ensign, Candance George, Jody Katz, Lindsey Rhodes, Mac Rhodes, Shannon Brown, Maxine Katz, Kalinka Brown, Meghan Stott, Isacc Morrison, Jay Morrison, parents and student of Utah Schools for the Deaf and the Blind; Sara Williams, Disability Law Center; and Closed Captioning Services.

USDB Committee Chair LeAnn Wood called the meeting to order at 9:02 a.m.

INFORMATION: Public Comment

1. Sara Williams, Disability Law Center, spoke in favor of language and communication plans.

1.2 INFORMATION: Student Enrichment Activity Report

Committee Discussion: Some students and parents shared their experiences and the personal benefits of various enrichment activities.

MOTION FOR THE BOARD: Information item, no motion for the Board.

1.3 ACTION: R277-802, USDB Enrichment Program (New)

Committee Discussion: Rule R277-802 is being established to provide requirements and procedures for the administration of the Educational Enrichment Programs for Deaf and Hard of Hearing Students and Blind and Visually Impaired Students administered through the Utah Schools for the Deaf and the Blind (USDB). The rule outlines the process for reviewing enrichment funding requests, advisory council involvement, program administration,

Date: June 9, 2026



Utah State Board of Education

allowable uses of funds, and statewide access to enrichment opportunities and supports for eligible students and families.

During the 2026 General Session, the Utah Legislature passed H.B. 448, Utah Schools for the Deaf and the Blind Amendments. The legislation amended provisions governing the mission, governance, and operation of USDB, formally established the advisory council in statute, clarified the advisory council's role regarding the Educational Enrichment Programs, reinforced statewide access to services and enrichment opportunities, and updated provisions related to Board oversight and administration of USDB programs.

The proposed rule establishes procedures and requirements for administration of the Educational Enrichment Programs consistent with H.B. 448 and current statutory requirements governing USDB. The rule defines the review and recommendation process for enrichment funding requests, establishes staff screening and advisory review procedures, clarifies allowable uses of enrichment funds, and provides requirements related to administration, accountability, and statewide access to enrichment opportunities.

The proposed rule also authorizes the use of enrichment funds for reasonable administrative and program support costs necessary for implementation of the Educational Enrichment Programs, including personnel, facilitation, outreach, application review, and program administration activities. Additionally, the rule provides flexibility for the use of evaluation tools, rubrics, and procedures developed in consultation with the advisory council while maintaining Board oversight and compliance with applicable law.

Staff presented R277-802, USDB Enrichment Program, Draft 2, for consideration and approval. Authorizing, and Implemented or Interpreted Law: [Article X, Section 3; 53E-3-401](#), [53E-8-206](#), and [53E-8-407](#); and [Title 53E](#) provisions governing the Utah Schools for the Deaf and the Blind.

Committee Action: Member Wood moved that lines 154 and 155 be amended to read "(a) USDB, in consultation with the advisory council, ~~[shall]~~ may establish a maximum fiscal cap per ~~[student]~~ entity per fiscal year ~~[for individual]~~ for USDB enrichment grants."

Motion passed unanimously.

Committee Action: Member Longacre moved that the Committee approve

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R277-802, USDB Enrichment Program Draft 2, as amended, on first reading and forward to the Board for approval on second and final reading.

Motion passed unanimously.

MOTION FOR THE BOARD: That the Board approve R277-802, USDB Enrichment Program Draft 3 on second and final reading.

1.4 ACTION: FY2027 USB Enrichment Budget

Committee Discussion: In accordance with Utah Code § [53E-8-204](#) and § [53E-8-407](#), the USDB Advisory Council has reviewed and formally recommended the proposed FY27 USB Enrichment Budget and associated program implementation plan.

The Enrichment Fund comprises revenues from the Institutional Trust Lands (SITLA). These funds are distinct from the General Operating Budget and are specifically dedicated to enhancing the educational opportunities for students who are Blind, or Deaf-Blind across the state of Utah.

The State Board of Education, acting as the governing board for USDB, is requested to review the Council's recommendations and approve the proposed budget allocation for the 2026-2027 year.

Committee Action: Member Longacre moved that the Committee approve the FY27 USB Enrichment budget recommended by the staff on first reading and forward to the Board for approval on second and final reading.

Motion passed unanimously.

MOTION FOR THE BOARD: That the Board approve the FY27 USB Enrichment budget recommended by the staff.

1.5 ACTION: USDB Fiscal Needs

Committee Discussion: Staff presented a list of Utah Schools for the Deaf and the Blind fiscal needs/priorities for the Board to consider requesting during the 2027 Utah Legislative session.

Committee Action: Member Boothe moved that the Committee forward the list of USDB fiscal needs to the Finance Committee.

Motion passed unanimously.

Date: June 9, 2026



MOTION FOR THE BOARD: That the Board move this recommendation to the Finance Committee.

1.6 ACTION: 8.30 Educational Benefit Review Policy

Committee Discussion: USDB staff presented a formal policy for Board consideration that establishes a comprehensive Educational Benefit Review (EBR) process to ensure that Individual Education Programs (IEPs) for campus students are "reasonably calculated" to provide meaningful progress. This policy mandates systematic self-assessment through routine cycles and targeted triggers, ensuring a "Golden Thread" of logical alignment between evaluations, goals, and specialized services. Staff presented draft one.

Committee Action: Member Boothe moved that the Committee approve the Educational Benefit Review Policy, Draft 1, on first reading and forward to the Board for approval on second and final reading.

Motion passed unanimously.

MOTION FOR THE BOARD: That the Board approve the Educational Benefit Review Policy, Draft 1, on second and final reading.

1.7 ACTION: Language and Communication Plan

Committee Discussion: The purpose of this agenda item is to consider a request that has been advanced by the Disability Law Center on behalf of some parents to require Language and Communication Plans (LCP) for students that are Deaf, Deafblind, and Hard of Hearing.

This URL <https://www.youtube.com/watch?v=kEX5QSMN5FQ> is an introductory video, specifically created for Special Education Directors in Utah as a way to briefly introduce the topic that has been created by the Disability Law Center.

Committee Action: Member Davis moved that the Committee recommend the Board approve a voluntary LEA pilot for developing model materials and implementing a Language and Communication Plan as a component in Individual Education Programs (IEPs) for deaf, deafblind, and hard of hearing students including a feedback and evaluation component from participants.

Motion passed unanimously.

MOTION FOR THE BOARD: that the Board approve a voluntary LEA pilot for

Date: June 9, 2026



Utah State Board of Education

developing model materials and implementing a Language and Communication Plan as a component in Individual Education Programs (IEPs) for deaf, deafblind, and hard of hearing students including a feedback and evaluation component from participants.

1.8 INFORMATION: Update on Utah Schools for the Deaf and Blind

Committee Discussion: Director Kate Borg gave a presentation about and updates of activities at the Blind School. Associate Superintendent Michelle Tanner presented information and updates from the Deaf School.

MOTION FOR THE BOARD: Information item, no motion for the Board.

1.9 INFORMATION: Advisory Council Update

Committee Discussion: Superintendent Darin Nielsen provided an update from the USDB Advisory Council.

MOTION FOR THE BOARD: Information item, no motion for the Board.

Adjournment:

Committee Action: Member Boothe moved to adjourn the meeting.

The motion passed without objection.

The meeting adjourned at 11:33 a.m.

UTAH STATE BOARD OF EDUCATION

Subject:

INFORMATION: Student Enrichment Activity Report

Agenda item type:

Information Item

Recommended Action:

Information item not motion

Purpose of Memo:

Staff recommendation

Background:

Students will provide the Committee with a brief report of their experiences and the personal benefits of various enrichment activities.

Contact:

Name: Darin Nielsen
Title: Superintendent
Phone:
Email: darinn@usdb.org

Attachments:

None

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: R277-802 USDB Enrichment Program (New)

Agenda item type:

Action Item

Recommended Action:

MOTION FOR THE BOARD: That the Board approve R277-802, USDB Enrichment Program Draft 3 on second and final reading.

Purpose of Memo:**Background:****Background of the Rule and Legislation:**

Rule R277-802 is being established to provide requirements and procedures for the administration of the Educational Enrichment Programs for Deaf and Hard of Hearing Students and Blind and Visually Impaired Students administered through the Utah Schools for the Deaf and the Blind (USDB). The rule outlines the process for reviewing enrichment funding requests, advisory council involvement, program administration, allowable uses of funds, and statewide access to enrichment opportunities and supports for eligible students and families.

During the 2026 General Session, the Utah Legislature passed H.B. 448, Utah Schools for the Deaf and the Blind Amendments. The legislation amended provisions governing the mission, governance, and operation of USDB, formally established the advisory council in statute, clarified the advisory council's role regarding the Educational Enrichment Programs, reinforced statewide access to services and enrichment opportunities, and updated provisions related to Board oversight and administration of USDB programs.

Summary of Proposed Action:

The proposed rule establishes procedures and requirements for administration of the Educational Enrichment Programs consistent with H.B. 448 and current statutory requirements governing USDB. The rule defines the review and recommendation process for enrichment funding requests, establishes staff screening and advisory review procedures, clarifies allowable uses of enrichment funds, and provides requirements related to administration, accountability, and statewide access to enrichment opportunities.

The proposed rule also authorizes the use of enrichment funds for reasonable administrative and program support costs necessary for implementation of the Educational Enrichment Programs, including personnel, facilitation, outreach, application review, and program administration activities. Additionally, the rule provides flexibility for the use of evaluation tools, rubrics, and procedures developed in consultation with the advisory council while maintaining Board oversight and compliance with applicable law.

Staff will present R277-802, USDB Enrichment Program, Draft 1, for consideration and approval. This Board Rule will replace the Utah Schools for the Deaf and the Blind Policy 4.02 USDB

Enrichment Program.

Authorizing, and Implemented or Interpreted Law: [Article X, Section 3](#); [53E-3-401](#), 53E-8-206, and [53E-8-407](#); and [Title 53E](#) provisions governing the Utah Schools for the Deaf and the Blind

Contact:

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Darin Nielsen

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Attachments:

1. R277-802- Draft 3 - August 2026 Board
2. R277-802 - Draft 2 - June 2026
3. R277-802- Draft 1 - May 2026 Committee
4. R277-802 Reporting Burden and Fiscal Impact Estimate Form

R277. Education, Administration.

R277-802. Educational Enrichment Programs for Deaf, Hard of Hearing, Blind, and Visually Impaired Students.

R277-802-1. Authority and Purpose.

_____ (1) This rule is authorized by:

_____ (a) Utah Constitution Article X, Section 3, which vests general control and supervision over public education in the Board;

_____ (b) Section 53E-3-401(4), which allows the Board to make rules to execute the Board's duties and responsibilities under the Utah Constitution and state law;

_____ (c) Section 53E-8-407, which establishes the Educational Enrichment Programs for Deaf and Hard of Hearing Students and Blind and Visually Impaired Students; and

_____ (d) applicable provisions of Title 53E governing the Utah Schools for the Deaf and the Blind.

_____ (2) The purpose of this rule is to:

_____ (a) establish procedures [~~for the administration and review of funding requests submitted under the~~] and standards for the administration and use of the Educational Enrichment Programs for Deaf and Hard of Hearing Students and Blind and Visually Impaired Students];

_____ (b) ensure equitable statewide access to family friendly enrichment opportunities and supports for eligible deaf, hard of hearing, blind, visually impaired, and deafblind students and families;

_____ (c) support enrichment opportunities statewide regardless of participation in a USDB campus program or service;

_____ (d) [~~provide a transparent and consistent process for evaluating enrichment requests~~] establish procedures for the administration and review of applications submitted by external entities to USDB and provide a transparent and consistent process for evaluating USDB Enrichment Grant funding requests;

(e) establish advisory council and subcommittee responsibilities related to ~~[enrichment funding recommendations]~~ Educational Enrichment Program and USDB Enrichment Grant funding recommendations; and

(f) ~~[provide flexibility for the development and use of evaluation tools, rubrics, and procedures developed in consultation with the advisory council]~~ authorize the development and use of evaluation tools, rubrics, and procedures developed in consultation with the advisory council.

R277-802-2. Definitions.

(1) "Advisory council" means the Advisory Council for the Utah Schools for the Deaf and the Blind established in Section 53E-8-206.

(2) "Educational enrichment programs" means the Educational Enrichment Program for Deaf and Hard of Hearing Students and the Educational Enrichment Program for Blind and Visually Impaired Students established in Section 53E-8-407.

(3) "Eligible student" means a student who is deaf, hard of hearing, blind, visually impaired, or deafblind and eligible for services from USDB in accordance with Section 53E-8-401.

(4) "Staff screening" means the initial administrative review of an application to verify eligibility, completeness, minimum requirements, and alignment with applicable program criteria.

(5) "Subcommittee" means a committee designated by the advisory council to review and evaluate enrichment requests before advisory council consideration.

R277-802-3. Enrichment Program Administration.

(1) USDB shall administer the Educational Enrichment Programs described in Section 53E-8-407 for eligible students served statewide by USDB.

(2) In accordance with Section 53E-8-206, the advisory council may establish subcommittees to review matters related to the Educational Enrichment Programs and make recommendations to the advisory council.

(a) A subcommittee representing the deaf and hard of hearing community may review and make recommendations regarding the distribution of funds from the Educational Enrichment Program for Deaf and Hard of Hearing Students.

(b) A subcommittee representing the blind and visually impaired community may review and make recommendations regarding the distribution of funds from the Educational Enrichment Program for Blind and Visually Impaired Students.

(c) Recommendations of a subcommittee shall be submitted to the advisory council for consideration before submission to the Board.

~~[(2)]~~(3) Enrichment funds may be used for activities or supports that promote:

(a) educational access;

(b) communication access;

(c) assistive technology;

(d) independent living skills;

(e) transition services;

(f) family engagement and support;

(g) interscholastic sports

~~[(e)]~~(h) enrichment opportunities, including:

(i) experiential learning;

(ii) educational travel;

(iii) competitions;

(iv) cultural activities; and

(v) community-based instruction; or

~~[(h)]~~(l) other purposes consistent with applicable law and Board-approved program objectives.

~~[(3)] USDB shall establish a review process that includes:~~

~~(a) staff screening of applications;~~

~~_____ (b) subcommittee review and evaluation; and~~
~~_____ (c) advisory council consideration and recommendation.~~
~~_____ (4) USDB shall develop and utilize evaluation tools, rubrics, procedures, or~~
~~scoring methodologies in consultation with the advisory council.~~
~~_____ (5) Evaluation tools, rubrics, procedures, and scoring methodologies developed~~
~~under Subsection (4) are not required to be incorporated into Board rule.~~
~~_____ (6) USDB may establish separate procedures or evaluation tools for different~~
~~student populations, programs, or request categories.~~
~~_____ (7) Educational enrichment program funds shall support eligible students~~
~~statewide regardless of participation in campus-based programs or services operated~~
~~by USDB.]~~

(4) Educational Enrichment Program funds may not be approved or used for:
(a) general entertainment, recreational, or leisure activities that do
not possess a documented, primary educational objective directly tied to the student's
documented educational needs;
(b) standard family vacations, personal travel, or commercial events;
(c) items or services that are purely decorative, cosmetic, or intended for
general household use; or
(d) out-of-state travel, unless the applicant demonstrates that a comparable
educational or competitive opportunity is entirely unavailable within the state of Utah.

R277-802-4. Annual Budget Preparation.

_____ (1) USDB shall prepare an annual proposed budget for the Educational
Enrichment Programs for Deaf and Hard of Hearing Students and Blind and Visually
Impaired Students.

_____ (2) The advisory council shall review and provide recommendations to the Board
regarding the proposed annual Enrichment Program budget.

_____ (3) The annual Enrichment Program budget recommendation process shall begin
each spring.

(4) Advisory council budget recommendations shall be submitted to the USDB Standing Committee for consideration no later than the Standing Committee's May or June meeting.

(5) Nothing in this section limits the Board's authority regarding final approval of budgets and expenditures.

[R277-802-5. Individual Funding Request Review Cycles.]

~~(1) USDB shall establish at least three enrichment review cycles annually.~~

~~(2) Advisory council review periods shall occur during:~~

~~(a) September;~~

~~(b) December; and~~

~~(c) March.~~

~~(3) USDB shall publish application deadlines and review schedules in advance of each review cycle.~~

~~(4) Subcommittee meetings shall occur sufficiently in advance of advisory council meetings to allow review and recommendations.~~

~~(5) USDB may establish expedited procedures for emergency or time-sensitive requests.]~~

R277-802-5 USDB Enrichment Grants.

(1) Within the annual budget described in Section R277-802-4, USDB may allocate a specific portion of program funds for direct grants to eligible entities.

(2) A USDB Enrichment Grant application must be directly related to a documented educational need related to the student's eligibility for USDB services and explicitly align with one or more of the following categories:

(a) expanded Core Curriculum (ECC) mastery, including orientation and mobility, independent living skills, compensatory access, and assistive technology operations;

(b) communication, language, and literacy access, including braille instruction, assistive technology and specialized language development tools;

(c) social engagement experiences such as leadership opportunities, transition and career readiness programs, cultural experiences, communication development, and access to communication-rich environment; or

(d) experiential learning, including regional or national academic competitions, specialized deaf or blind athletic events, or state core-aligned educational travel, and other activities that promote academic success.

(3) Application Requirements. To be considered for a USDB Enrichment Grant, an applicant shall submit:

(a) a detailed description of the activity, item, or service requested;

(b) an itemized budget detailing exactly how the requested funds will be expended; and

(c) a statement outlining the anticipated educational impact or skill development directly related to the student's sensory disability.

(4) Limitations and Caps.

(a) USDB, in consultation with the advisory council, ~~shall~~ may establish a maximum fiscal cap per ~~student~~ entity per fiscal year for ~~individual~~ USDB Enrichment Grants.

(b) USDB grant funds may not be used to supplant services or technologies that are the legal responsibility of the student's local education agency (LEA) of record under the Individuals with Disabilities Education Act (IDEA) or Section 504 of the Rehabilitation Act.

(c) grant funds may not be awarded retroactively for activities or items purchased prior to formal approval by USDB.

R277-802-6 USDB Grant Application Review Process and Cycles.

(1) USDB shall establish a review process that includes:

(a) staff screening of applications;

(b) subcommittee review and evaluation; and

(c) advisory council consideration and recommendation to the Board.

(2) USDB shall develop and utilize evaluation tools, rubrics, procedures, or scoring methodologies in consultation with the advisory council.

(3) USDB may establish separate procedures or evaluation tools for different student populations, programs, or request categories.

(4) Evaluation tools, rubrics, procedures, and scoring methodologies developed under Subsection (3) are not required to be incorporated into Board rule.

(5) USDB Enrichment Grants shall support eligible students statewide regardless of participation in campus-based programs or services operated by USDB.

(6) USDB shall establish at least three enrichment review cycles annually.

(7) Advisory council review periods shall occur during:

(a) September;

(b) December; and

(c) March.

(8) USDB shall publish application deadlines and review schedules in advance of each review cycle.

(9) Subcommittee meetings shall occur sufficiently in advance of advisory council meetings to allow review and recommendations.

(10) USDB may establish expedited procedures for emergency or time-sensitive requests.

R277-802-[6](7). Administrative Costs and Program Support.

(1) A reasonable portion of educational enrichment program funds may be used for administrative and program support costs reasonably necessary for implementation of the Educational Enrichment Programs.

(2) Allowable administrative and program support costs may include:

(a) salaries, wages, and benefits for personnel supporting enrichment activities or administration of the Educational Enrichment Programs;

(b) program coordination and facilitation;

_____ (c) technical assistance and applicant support;
_____ (d) outreach and communication;
_____ (e) application review and processing;
_____ (f) compliance monitoring and reporting;
_____ (g) data collection and program evaluation; and
_____ (h) other activities reasonably necessary for effective administration and
implementation of the Educational Enrichment Programs, in accordance with applicable
law.

R277-802-~~(7)~~(8). Conflict of Interest.

_____ (1) Advisory council members or subcommittee members may not vote on any
matter that would provide a financial benefit to the member or otherwise create the
appearance of a conflict of interest under applicable law.
_____ (2) USDB shall establish procedures for disclosure of conflicts, abstentions, and
conflict-of-interest management.

R277-802-~~(8)~~(9). Reporting and Accountability.

_____ (1) USDB shall maintain records regarding Enrichment Program expenditures
and USDB Enrichment Grant applications, awards, and ~~[expenditures]~~reimbursements.
_____ (2) USDB shall provide periodic reports to the Board and advisory councils
regarding program implementation and funding activity.
_____ (3) USDB may require recipients to provide documentation demonstrating
appropriate use of enrichment funds.
_____ (4) Program funds shall be distributed and administered in accordance with
applicable Board policies, financial procedures, procurement requirements, and
program administration requirements.
_____ (5) USDB may deny, suspend, or recover enrichment funds for noncompliance
with applicable requirements or misuse of funds.

226 **R277-802-[9](10). Funding.**

227 (1) The programs described in this rule shall be funded from revenues distributed
228 from permanent funds established for the Utah Schools for the Deaf and the Blind in
229 accordance with applicable law.

230 (2) Program expenditures shall comply with Board-approved budgets and
231 applicable state law.

232

233 **KEY: USDB, educational enrichment programs, deaf, hard of hearing, blind,**
234 **visually impaired, advisory council. Date of Enactment or Last Substantive**
235 **Amendment: [date]Authorizing, and Implemented, or Interpreted Law: Utah**
236 **Constitution Article X, Section 3; Sections 53E-3-401, 53E-8-206, and 53E-8-407;**
237 **and Title 53E provisions governing the Utah Schools for the Deaf and the Blind.**

R277. Education, Administration.

R277-802. Educational Enrichment Programs for Deaf, Hard of Hearing, Blind, and Visually Impaired Students.

R277-802-1. Authority and Purpose.

_____ (1) This rule is authorized by:

_____ (a) Utah Constitution Article X, Section 3, which vests general control and supervision over public education in the Board;

_____ (b) Section 53E-3-401(4), which allows the Board to make rules to execute the Board's duties and responsibilities under the Utah Constitution and state law;

_____ (c) Section 53E-8-407, which establishes the Educational Enrichment Programs for Deaf and Hard of Hearing Students and Blind and Visually Impaired Students; and

_____ (d) applicable provisions of Title 53E governing the Utah Schools for the Deaf and the Blind.

_____ (2) The purpose of this rule is to:

_____ (a) establish procedures [~~for the administration and review of funding requests submitted under the~~] and standards for the administration and use of the Educational Enrichment Programs for Deaf and Hard of Hearing Students and Blind and Visually Impaired Students];

_____ (b) ensure equitable statewide access to family friendly enrichment opportunities and supports for eligible deaf, hard of hearing, blind, visually impaired, and deafblind students and families;

_____ (c) support enrichment opportunities statewide regardless of participation in a USDB campus program or service;

_____ (d) [~~provide a transparent and consistent process for evaluating enrichment requests~~] establish procedures for the administration and review of applications submitted by external entities to USDB and provide a transparent and consistent process for evaluating USDB Enrichment Grant funding requests;

(e) establish advisory council and subcommittee responsibilities related to
~~[enrichment funding recommendations]~~ Educational Enrichment Program and USDB
Enrichment Grant funding recommendations; and

(f) ~~[provide flexibility for the development and use of evaluation tools, rubrics, and
procedures developed in consultation with the advisory council]~~ authorize the
development and use of evaluation tools, rubrics, and procedures developed in
consultation with the advisory council.

R277-802-2. Definitions.

(1) "Advisory council" means the Advisory Council for the Utah Schools for the
Deaf and the Blind established in Section 53E-8-206.

(2) "Educational enrichment programs" means the Educational Enrichment
Program for Deaf and Hard of Hearing Students and the Educational Enrichment
Program for Blind and Visually Impaired Students established in Section 53E-8-407.

(3) "Eligible student" means a student who is deaf, hard of hearing, blind, visually
impaired, or deafblind and eligible for services from USDB in accordance with Section
53E-8-401.

(4) "Staff screening" means the initial administrative review of an application to
verify eligibility, completeness, minimum requirements, and alignment with applicable
program criteria.

(5) "Subcommittee" means a committee designated by the advisory council to
review and evaluate enrichment requests before advisory council consideration.

R277-802-3. Enrichment Program Administration.

(1) USDB shall administer the educational enrichment programs described in
Section 53E-8-407 for eligible students served statewide by USDB.

(2) In accordance with Section 53E-8-206, the advisory council may establish subcommittees to review matters related to the Educational Enrichment Programs and make recommendations to the advisory council.

(a) A subcommittee representing the deaf and hard of hearing community may review and make recommendations regarding the distribution of funds from the Educational Enrichment Program for Deaf and Hard of Hearing Students.

(b) A subcommittee representing the blind and visually impaired community may review and make recommendations regarding the distribution of funds from the Educational Enrichment Program for Blind and Visually Impaired Students.

(c) Recommendations of a subcommittee shall be submitted to the advisory council for consideration before submission to the Board.

~~(2)~~(3) Enrichment funds may be used for activities or supports that promote:

(a) educational access;

(b) communication access;

(c) assistive technology;

(d) independent living skills;

(e) transition services;

(f) family engagement and support;

(g) interscholastic sports

~~(e)~~(h) enrichment opportunities, including:

(i) experiential learning;

(ii) educational travel;

(iii) competitions;

(iv) cultural activities; and

(v) community-based instruction; or

~~(h)~~(l) other purposes consistent with applicable law and Board-approved program objectives.

~~(3) USDB shall establish a review process that includes:~~

~~(a) staff screening of applications;~~

~~_____ (b) subcommittee review and evaluation; and~~
~~_____ (c) advisory council consideration and recommendation.~~
~~_____ (4) USDB shall develop and utilize evaluation tools, rubrics, procedures, or~~
~~scoring methodologies in consultation with the advisory council.~~
~~_____ (5) Evaluation tools, rubrics, procedures, and scoring methodologies developed~~
~~under Subsection (4) are not required to be incorporated into Board rule.~~
~~_____ (6) USDB may establish separate procedures or evaluation tools for different~~
~~student populations, programs, or request categories.~~
~~_____ (7) Educational enrichment program funds shall support eligible students~~
~~statewide regardless of participation in campus-based programs or services operated~~
~~by USDB.]~~

(4) Educational enrichment program funds may not be approved or used for:
(a) general entertainment, recreational, or leisure activities that do
not possess a documented, primary educational objective directly tied to the student's
documented educational needs;
(b) standard family vacations, personal travel, or commercial events;
(c) items or services that are purely decorative, cosmetic, or intended for
general household use; or
(d) out-of-state travel, unless the applicant demonstrates that a comparable
educational or competitive opportunity is entirely unavailable within the state of Utah.

R277-802-4. Annual Budget Preparation.

_____ (1) USDB shall prepare an annual proposed budget for the Educational
Enrichment Programs for Deaf and Hard of Hearing Students and Blind and Visually
Impaired Students.
_____ (2) The advisory council shall review and provide recommendations to the Board
regarding the proposed annual enrichment program budget.
_____ (3) The annual enrichment program budget recommendation process shall begin

each spring.

(4) Advisory council budget recommendations shall be submitted to the USDB Standing Committee for consideration no later than the Standing Committee's May or June meeting.

(5) Nothing in this section limits the Board's authority regarding final approval of budgets and expenditures.

[R277-802-5. Individual Funding Request Review Cycles.]

~~(1) USDB shall establish at least three enrichment review cycles annually.~~

~~(2) Advisory council review periods shall occur during:~~

~~(a) September;~~

~~(b) December; and~~

~~(c) March.~~

~~(3) USDB shall publish application deadlines and review schedules in advance of each review cycle.~~

~~(4) Subcommittee meetings shall occur sufficiently in advance of advisory council meetings to allow review and recommendations.~~

~~(5) USDB may establish expedited procedures for emergency or time-sensitive requests.]~~

R277-802-5 USDB Enrichment Grants.

(1) Within the annual budget described in Section R277-802-4, USDB may allocate a specific portion of program funds for direct grants to eligible entities.

(2) A USDB enrichment grant application must be directly related to a documented educational need related to the student's eligibility for USDB services and explicitly align with one or more of the following categories:

(a) expanded Core Curriculum (ECC) mastery, including orientation and mobility, independent living skills, compensatory access, and assistive technology operations;

(b) communication, language, and literacy access, including braille instruction, assistive technology and specialized language development tools; (c) social engagement experiences such as leadership opportunities, transition and career readiness programs, cultural experiences, communication development, and access to communication-rich environment; or (d) experiential learning, including regional or national academic competitions, specialized deaf or blind athletic events, or state core-aligned educational travel, and other activities that promote academic success.

(3) Application Requirements. To be considered for a USDB Enrichment grant, an applicant shall submit:

(a) a detailed description of the activity, item, or service requested; (b) an itemized budget detailing exactly how the requested funds will be expended; and (c) a statement outlining the anticipated educational impact or skill development directly related to the student's sensory disability.

(4) Limitations and Caps.

(a) USDB, in consultation with the advisory council, shall establish a maximum fiscal cap per student per fiscal year for individual grants.

(b) USDB grant funds may not be used to supplant services or technologies that are the legal responsibility of the student's local education agency (LEA) of record under the Individuals with Disabilities Education Act (IDEA) or Section 504 of the Rehabilitation Act.

(c) grant funds may not be awarded retroactively for activities or items purchased prior to formal approval by USDB.

R277-802-6 USDB Grant Application Review Process and Cycles.

(1) USDB shall establish a review process that includes:

(a) staff screening of applications; (b) subcommittee review and evaluation; and

- (c) advisory council consideration and recommendation to the Board.
- (2) USDB shall develop and utilize evaluation tools, rubrics, procedures, or scoring methodologies in consultation with the advisory council.
- (3) USDB may establish separate procedures or evaluation tools for different student populations, programs, or request categories.
- (4) Evaluation tools, rubrics, procedures, and scoring methodologies developed under Subsection (3) are not required to be incorporated into Board rule.
- (5) USDB Enrichment Grants shall support eligible students statewide regardless of participation in campus-based programs or services operated by USDB.
- (6) USDB shall establish at least three enrichment review cycles annually.
- (7) Advisory council review periods shall occur during:
- (a) September;
- (b) December; and
- (c) March.
- (8) USDB shall publish application deadlines and review schedules in advance of each review cycle.
- (9) Subcommittee meetings shall occur sufficiently in advance of advisory council meetings to allow review and recommendations.
- (10) USDB may establish expedited procedures for emergency or time-sensitive requests.

R277-802-[6](7). Administrative Costs and Program Support.

- (1) A reasonable portion of educational enrichment program funds may be used for administrative and program support costs reasonably necessary for implementation of the educational enrichment programs.
- (2) Allowable administrative and program support costs may include:
- (a) salaries, wages, and benefits for personnel supporting enrichment activities or administration of the educational enrichment programs;

_____ (b) program coordination and facilitation;
_____ (c) technical assistance and applicant support;
_____ (d) outreach and communication;
_____ (e) application review and processing;
_____ (f) compliance monitoring and reporting;
_____ (g) data collection and program evaluation; and
_____ (h) other activities reasonably necessary for effective administration and
implementation of the educational enrichment programs, in accordance with applicable
law.

R277-802-~~[7]~~(8). Conflict of Interest.

_____ (1) Advisory council members or subcommittee members may not vote on any
matter that would provide a financial benefit to the member or otherwise create the
appearance of a conflict of interest under applicable law.
_____ (2) USDB shall establish procedures for disclosure of conflicts, abstentions, and
conflict-of-interest management.

R277-802-~~[8]~~(9). Reporting and Accountability.

_____ (1) USDB shall maintain records regarding enrichment program expenditures and
USDB Enrichment Grant applications, awards, and ~~[expenditures]~~reimbursements.
_____ (2) USDB shall provide periodic reports to the Board and advisory councils
regarding program implementation and funding activity.
_____ (3) USDB may require recipients to provide documentation demonstrating
appropriate use of enrichment funds.
_____ (4) Program funds shall be distributed and administered in accordance with
applicable Board policies, financial procedures, procurement requirements, and
program administration requirements.
_____ (5) USDB may deny, suspend, or recover enrichment funds for noncompliance
with applicable requirements or misuse of funds.

224

225 **R277-802-~~9~~(10). Funding.**

226 _____ (1) The programs described in this rule shall be funded from revenues distributed

227 from permanent funds established for the Utah Schools for the Deaf and the Blind in

228 accordance with applicable law.

229 _____ (2) Program expenditures shall comply with Board-approved budgets and

230 applicable state law.

231

232 **KEY: USDB, educational enrichment programs, deaf, hard of hearing, blind,**

233 **visually impaired, advisory council. Date of Enactment or Last Substantive**

234 **Amendment: [date]Authorizing, and Implemented, or Interpreted Law: Utah**

235 **Constitution Article X, Section 3; Sections 53E-3-401, 53E-8-206, and 53E-8-407;**

236 **and Title 53E provisions governing the Utah Schools for the Deaf and the Blind.**

R277. Education, Administration.

R277-802. Educational Enrichment Programs for Deaf, Hard of Hearing, Blind, and Visually Impaired Students.

R277-802-1. Authority and Purpose.

_____ (1) This rule is authorized by:

_____ (a) Utah Constitution Article X, Section 3, which vests general control and supervision over public education in the Board;

_____ (b) Section 53E-3-401(4), which allows the Board to make rules to execute the Board's duties and responsibilities under the Utah Constitution and state law;

_____ (c) Section 53E-8-407, which establishes the Educational Enrichment Programs for Deaf and Hard of Hearing Students and Blind and Visually Impaired Students; and

_____ (d) applicable provisions of Title 53E governing the Utah Schools for the Deaf and the Blind.

_____ (2) The purpose of this rule is to:

_____ (a) establish procedures for the administration and review of funding requests submitted under the Educational Enrichment Programs for Deaf and Hard of Hearing Students and Blind and Visually Impaired Students;

_____ (b) ensure equitable statewide access to family friendly enrichment opportunities and supports for eligible deaf, hard of hearing, blind, visually impaired, and deafblind students and families;

_____ (c) support enrichment opportunities statewide regardless of participation in a USDB campus program or service;

_____ (d) provide a transparent and consistent process for evaluating enrichment requests;

_____ (e) establish advisory council and subcommittee responsibilities related to enrichment funding recommendations; and

_____ (f) provide flexibility for the development and use of evaluation tools, rubrics, and procedures developed in consultation with the advisory council.

R277-802-2. Definitions.

(1) "Advisory council" means the Advisory Council for the Utah Schools for the Deaf and the Blind established in Section 53E-8-206.

(2) "Educational enrichment programs" means the Educational Enrichment Program for Deaf and Hard of Hearing Students and the Educational Enrichment Program for Blind and Visually Impaired Students established in Section 53E-8-407.

(3) "Eligible student" means a student who is deaf, hard of hearing, blind, visually impaired, or deafblind and eligible for services from USDB in accordance with Section 53E-8-401.

(4) "Staff screening" means the initial administrative review of an application to verify eligibility, completeness, minimum requirements, and alignment with applicable program criteria.

(5) "Subcommittee" means a committee designated by the advisory council to review and evaluate enrichment requests before advisory council consideration.

R277-802-3. Enrichment Program Administration.

(1) USDB shall administer the educational enrichment programs described in Section 53E-8-407 for eligible students served statewide by USDB.

(2) Enrichment funds may be used for activities or supports that promote:

(a) educational access;

(b) communication access;

(c) assistive technology;

(d) independent living skills;

(e) transition services;

(f) family engagement and support;

(g) enrichment opportunities, including:

(i) experiential learning;

(ii) educational travel;

_____ (iii) competitions;
_____ (iv) cultural activities; and
_____ (v) community-based instruction; or
_____ (h) other purposes consistent with applicable law and Board-approved program
objectives.

_____ (3) USDB shall establish a review process that includes:

_____ (a) staff screening of applications;
_____ (b) subcommittee review and evaluation; and
_____ (c) advisory council consideration and recommendation.

_____ (4) USDB shall develop and utilize evaluation tools, rubrics, procedures, or
scoring methodologies in consultation with the advisory council.

_____ (5) Evaluation tools, rubrics, procedures, and scoring methodologies developed
under Subsection (4) are not required to be incorporated into Board rule.

_____ (6) USDB may establish separate procedures or evaluation tools for different
student populations, programs, or request categories.

_____ (7) Educational enrichment program funds shall support eligible students
statewide regardless of participation in campus-based programs or services operated
by USDB.

R277-802-4. Annual Budget Preparation.

_____ (1) USDB shall prepare an annual proposed budget for the Educational
Enrichment Programs for Deaf and Hard of Hearing Students and Blind and Visually
Impaired Students.

_____ (2) The advisory council shall review and provide recommendations to the Board
regarding the proposed annual enrichment program budget.

_____ (3) The annual enrichment program budget recommendation process shall begin
each spring.

_____ (4) Advisory council budget recommendations shall be submitted to the USDB

Standing Committee for consideration no later than the Standing Committee's May or June meeting.

(5) Nothing in this section limits the Board's authority regarding final approval of budgets and expenditures.

R277-802-5. Individual Funding Request Review Cycles.

(1) USDB shall establish at least three enrichment review cycles annually.

(2) Advisory council review periods shall occur during:

(a) September;

(b) December; and

(c) March.

(3) USDB shall publish application deadlines and review schedules in advance of each review cycle.

(4) Subcommittee meetings shall occur sufficiently in advance of advisory council meetings to allow review and recommendations.

(5) USDB may establish expedited procedures for emergency or time-sensitive requests.

R277-802-6. Administrative Costs and Program Support.

(1) A reasonable portion of educational enrichment program funds may be used for administrative and program support costs reasonably necessary for implementation of the educational enrichment programs.

(2) Allowable administrative and program support costs may include:

(a) salaries, wages, and benefits for personnel supporting enrichment activities or administration of the educational enrichment programs;

(b) program coordination and facilitation;

(c) technical assistance and applicant support;

(d) outreach and communication;

_____ (e) application review and processing;
_____ (f) compliance monitoring and reporting;
_____ (g) data collection and program evaluation; and
_____ (h) other activities reasonably necessary for effective administration and
implementation of the educational enrichment programs, in accordance with applicable
law.

R277-802-7. Conflict of Interest.

_____ (1) Advisory council members or subcommittee members may not vote on any
matter that would provide a financial benefit to the member or otherwise create the
appearance of a conflict of interest under applicable law.

_____ (2) USDB shall establish procedures for disclosure of conflicts, abstentions, and
conflict-of-interest management.

R277-802-8. Reporting and Accountability.

_____ (1) USDB shall maintain records regarding enrichment program applications,
awards, and expenditures.

_____ (2) USDB shall provide periodic reports to the Board and advisory councils
regarding program implementation and funding activity.

_____ (3) USDB may require recipients to provide documentation demonstrating
appropriate use of enrichment funds.

_____ (4) Program funds shall be distributed and administered in accordance with
applicable Board policies, financial procedures, procurement requirements, and
program administration requirements.

_____ (5) USDB may deny, suspend, or recover enrichment funds for noncompliance
with applicable requirements or misuse of funds.

R277-802-9. Funding.

_____ (1) The programs described in this rule shall be funded from revenues distributed

from permanent funds established for the Utah Schools for the Deaf and the Blind in
accordance with applicable law.

(2) Program expenditures shall comply with Board-approved budgets and
applicable state law.

**KEY: USDB, educational enrichment programs, deaf, hard of hearing, blind,
visually impaired, advisory council. Date of Enactment or Last Substantive
Amendment: [date]Authorizing, and Implemented, or Interpreted Law: Utah
Constitution Article X, Section 3; Sections 53E-3-401, 53E-8-206, and 53E-8-407;
and Title 53E provisions governing the Utah Schools for the Deaf and the Blind.**

Utah State Board of Education

Reporting Burden and Fiscal Impact Estimate

R277-802 – USDB Enrichment Program (New)

1. Reporting Burden for LEAs

This rule change does not add reports for LEAs. USDB is required to provide periodic reports to the Board.

2. Estimated Fiscal Impact on USBE

This rule change is not estimated to have fiscal impacts on USBE.

3. Estimated Fiscal Impact on LEAs

This rule change is not estimated to have fiscal impacts on LEAs.

Author: Sam Urie

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: FY2027 USB Enrichment Budget

Agenda item type:

Action Item

Recommended Action:

MOTION FOR THE BOARD: That the Board approve the FY27 USB Enrichment budget recommended by the staff.

Purpose of Memo:

Staff recommendation

Background:

In accordance with Utah Code § [53E-8-204](#) and § [53E-8-407](#), the USDB Advisory Council has reviewed and formally recommended the proposed FY27 USB Enrichment Budget and associated program implementation plan.

The Enrichment Fund comprises revenues from the Institutional Trust Lands (SITLA). These funds are distinct from the General Operating Budget and are specifically dedicated to enhancing the educational opportunities for students who are Deaf, Blind, or Deaf-Blind across the state of Utah.

The State Board of Education, acting as the governing board for USDB, is requested to review the Council's recommendations and approve the proposed budget allocation for the 2026-2027 year.

Contact:

Name:	Susan Patton	Darin Nielsen
Title:	Associate Superintendent of the Utah School for the Blind	Superintendent of the Utah Schools for the Deaf and the Blind
Phone:	801-629-4715	801- 629-4710
Email:	susanp@usdb.org	darinn@usdb.org

Attachments:

1. Advisory Council recommended FY27 Enrichment Budget
2. USDB Staff Proposed FY27 Enrichment Budget

Function Code	Blind School Enrichment Fund Projects			Superintendent Recommendations
				FY26 Allocation \$1,208,000.00
	Patten	George	Extra-Curricular Activities for	\$ 220,000.00
	Patten	Weeks/Cook	Expanded Core for the Blind	\$ 150,000.00
	Patten	Patten	Genote	\$ -
	Patten	Watts	USB Music Programming	\$ -
	Patten	Patten	LEA Activity Support	\$ 30,000.00
	Patten	Patten	Family Activity Support	\$ 35,000.00
	Patten	Patten	TVI Support	\$ 75,000.00
	Patten	Phillips	AT - ALMC	\$ 25,000.00
	Patten	Phillips	AT - High Tech	\$ 100,000.00
	Patten	USBE	Salaries	\$ 87,500.00
	Patten	Lavato/Borg	ERC Support (Braille repair, /	\$ 50,000.00
	Patten	Patten	RESAs	\$ 30,000.00
	Patten	Patten/Borg	Campus Activities	\$ 35,000.00
	Patten	Patten	UWIN	\$ 50,000.00
	Patten	Brown	Mentor Support	\$ 50,000.00
	Patten		Blind Hockey Program	\$ -
				\$ 937,500.00

Function Code	Blind School Enrichment Fund Projects			Superintendent Recommendations
				FY26 Allocation \$1,208,000.00
	Patten	George	Extra-Curricular Activities for	\$ 220,000.00
	Patten	Weeks/Cook	Expanded Core for the Blind	\$ 150,000.00
	Patten	Patten	Genote	\$ -
	Patten	Watts	USB Music Programming	\$ -
	Patten	Patten	LEA Activity Support	\$ 30,000.00
	Patten	Patten	Family Activity Support	\$ 35,000.00
	Patten	Patten	TVI Support	\$ 75,000.00
	Patten	Phillips	AT - ALMC	\$ 25,000.00
	Patten	Phillips	AT - High Tech	\$ 100,000.00
	Patten	USBE	Salaries	\$ 322,000.00
	Patten	Lavato/Borg	ERC Support (Braille repair, /	\$ 50,000.00
	Patten	Patten	RESAs	\$ 30,000.00
	Patten	Patten/Borg	Campus Activities	\$ 35,000.00
	Patten	Patten	UWIN	\$ 50,000.00
	Patten	Brown	Mentor Support	\$ 50,000.00
	Patten		Blind Hockey Program	\$ -
				\$ 1,172,000.00

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: USDB Fiscal Needs

Agenda item type:

Action Item

Recommended Action:

MOTION FOR THE BOARD: That the Board move this recommendation to the Finance Committee.

Purpose of Memo:

Staff recommendation

Background:

Staff will present a list of Utah Schools for the Deaf and the Blind fiscal needs/priorities for the Board to consider requesting during the 2027 Utah Legislative session.

Contact:

Name:	Darin Nielsen	Deborah Jacobsen
Title:	Superintendent of the Utah Schools for the Deaf and the Blind	Assistant Superintendent of Operations
Phone:	801-629-4710	801-538-7627
Email:	darinn@usdb.org	deborah.jacobsen@schools.utah.gov

Attachments:

1. 2027 Session Policy & Funding Request - USDB
2. USDB Fiscal Needs - Detail

USBE Legislative Request Form

(Policy, Funding, & Efficiency / Reductions)

2027 General Session

Instructions: Use this form to submit requests for statutory changes, new financial resources, or proposed efficiencies (program cuts/reductions). Please complete **Section 1 and 2**, and then complete **Section 3 and/or 4** depending on the nature of your request.

SECTION 1: THE BOTTOM LINE

Request Title: Utah Schools for the Deaf and the Blind

USBE Lead Point of Contact:

- Name: Darin Nielsen
- Email: darinn@usdb.org
- USBE Section: Utah Schools for the Deaf and the Blind

Deputy Superintendent Reviewer: _____

(Note: You must review this request with your Deputy Superintendent prior to submission).

Nature of Request (Select all that apply):

☐ **Policy Change:** Creating, amending, or repealing Utah State Code.
(Complete Section 4)

☒ **New/Increased Funding:** Seeking new financial resources.
(Complete Section 3)

☐ **Efficiency / Reduction:** Proposing the elimination or reduction of a program, mandate, or funding stream. (Complete Section 3 and/or 4)

Purpose Statement (BLUF - Bottom Line Up Front):

In 1-2 sentences, state the exact action you are requesting and the anticipated outcome. (e.g., "We are requesting a statutory amendment and \$2M in ongoing funding to create three Mobile Advanced Manufacturing Labs for rural LEAs.")

We are requesting \$2,718,766 in funding to secure materials, equipment, and dedicated personnel required to fully remediate the 2025 audit findings and increase compliance levels with Utah State Board Rules and state law including school safety. This investment will stabilize USDB's financial, data, and risk-management infrastructure without diverting critical resources away from direct K-12 classroom instruction.

SECTION 2: THE BUSINESS CASE

(Required for all requests)

The Problem:

Describe the specific issue, mandate, or inefficiency this request addresses.

This request addresses critical operational and compliance needs identified during two recent audits and subsequent reduction-in-force (RIF) actions at the Utah Schools for the Deaf and the Blind (USDB) in 2025. The audits highlighted key inefficiencies requiring immediate rectification, specifically within data and financial management, strategic planning, policy development, and risk management. Over the past eight months, USDB leadership has utilized existing budgetary resources to address these gaps while evaluating the long-term impacts of the staff reductions. This funding request is the direct result of that evaluation, targeting specific areas where additional fiscal support is required to successfully mitigate institutional risk and ensure sustainable, efficient operations moving forward.

The Source:

Describe how this idea came to be, what is the support and opposition to this request, with who or what groups did this request originate from?

Origin of the Request

This request originated directly from the Utah Schools for the Deaf and the Blind (USDB) Administrative Team. It was developed through a internal evaluation following the 2025 organizational audits, policy and law compliance review, and subsequent staff reductions.

Compliance and Alignment Gaps

While triggered by internal reviews, critical components of this fiscal request were designed to close newly identified vulnerabilities in state-level alignment. Specifically, the request addresses gaps between current operational capacities and the mandates outlined in Utah State Board Rule and Utah State Law. Funding will ensure that USDB's data systems, risk management frameworks, and financial operations achieve compliance with statutory obligations.

Support and Opposition

- **Support:** There is strong internal consensus and unified support for this request among USDB leadership, administrative staff, and operational teams who recognize the immediate necessity of stabilizing our infrastructure.
- **Opposition:** There is no known opposition to this request. The proposed adjustments focus entirely on administrative remediation, compliance mitigation, and operational efficiency, serving the best interest of students, staff, and state oversight bodies alike.

Projected Results:

If approved, what is the measurable outcome in the K-12 system?

(Please list 1-2 specific performance metrics. Link to existing performance measures will be added here).

Measurable Outcome: If approved, this funding will directly protect the K-12 instructional environment by reducing the operational, financial, and compliance risks caused by recent structural down-sizing. It ensures that USDB leadership can maintain seamless, uninterrupted administrative oversight, directly benefiting the specialized K-12 student populations we serve.

Performance Metrics:

1. Audit Resolution Rate: 100% mitigation and closure of high-risk operational and policy gaps identified in the 2025 audits by the end of Fiscal Year 2027/2028.

Consequence of Inaction:

Factually state the impact if this request is NOT approved or funded.

If this request is not funded, the Utah Schools for the Deaf and the Blind will lack the resource capacity to fully remediate the deficiencies identified in the 2025 audits. The specific, factual impacts of inaction include:

- **Operational Over-Extension:** Following the 2025 reductions in force (RIF), existing administrative staff will continue to operate beyond sustainable capacity. This heightens the risk of critical oversight errors in data tracking and financial management.

- **Delayed Strategic Planning:** Without dedicated support, the development of required risk management frameworks and modernized policy updates will be delayed, preventing USDB from establishing a proactive, stabilized operational baseline.
- **Indirect Classroom Impact:** Unresolved administrative and data inefficiencies will eventually create operational bottlenecks, diverting leadership focus away from supporting direct K-12 instructional services and student outcomes.

Evidence & Data:

Provide the source, research, or analysis that proves this is the right approach (e.g., cost-benefit analysis, program evaluation, pilot program results).

1. External Audit Mandates and Gap Analysis

The primary source proving this approach is the formal finding documentation from the two 2025 independent/state audits conducted at USDB. These audits served as a comprehensive gap analysis, explicitly identifying structural vulnerabilities in data tracking, financial management, and risk mitigation.

2. Internal Capacity and RIF Impact Evaluation

Over the past eight months, USDB leadership conducted an internal operational capacity analysis to evaluate the effects of the 2025 reductions in force (RIF). The data demonstrated that while routine day-to-day operations could be maintained, the specialized workload required to build, implement, and oversee new compliance frameworks, policy developments, and modernized data structures exceed current personnel bandwidth. This

analysis indicates that external fiscal intervention is required to achieve compliance without degrading direct K-12 instructional services.

SECTION 3: FUNDING, OFFSETS, & EFFICIENCIES

(Complete only if your request involves financial resources or proposing budget cuts)

Financial Ask:

(If a field does not apply, enter \$0).

- **FY 2027 Ongoing Requested:** \$ 1,440,700
- **FY 2027 One-Time Requested:** \$ 1,278,066
- **Proposed Offsets / Savings:** \$ \$0 *(Amount saved by cutting redundancies or reallocating existing funds)*

The Offset Strategy:

If you are requesting new funds, what duplicate programs, ineffective streams, or outdated mandates could be cut or reallocated to fund this? Please name the specific programs/funds.

Due to the comprehensive 2025 reductions in force (RIF) and subsequent organizational restructuring, the Utah Schools for the Deaf and the Blind (USDB) has already aggressively identified, defunded, and eliminated positions and inefficient operational streams.

Over the past eight months, USDB leadership evaluated all internal accounts and program allocations. Because we have streamlined our infrastructure to

its baseline, there are no known duplicate administrative programs or ineffective funding streams remaining.

Any further reduction or reallocation of existing funds would require cutting direct K-12 instructional programs, specialized classroom technology, or essential student therapies (such as speech-language pathology and orientation/mobility services). Doing so would directly compromise USDB's ability to deliver a Free Appropriate Public Education (FAPE) under federal and state statutory mandates.

Future Obligations:

Does this request create multi-year scale-up costs or ongoing maintenance obligations?

☐ Yes

☒ No

If yes, please describe: _____

Itemized Budget Request:

(Please detail how the funding will be utilized across the following categories).

Cost Category	FY 2027 (Current)	FY 2028
TOTAL REQUESTED	\$2,718,766	\$1,440,700

New USBE FTEs Requested: 7 (Enter number of new FTEs)

Can current FTEs be assigned these responsibilities? Explain.

If no FTEs are required, explain.

Following the significant 2025 reductions in force (RIF), USDB's existing FTEs are already operating at maximum capacity, having absorbed the baseline operational and instructional tasks of the eliminated positions. Assigning these additional responsibilities to current staff is not viable

SECTION 4: POLICY & STATUTE

(Complete only if your request involves changing or eliminating Utah State Code)

Code Sections Affected: *(List specific state code references, or write "New Code")*

[Type response here]

Suggested Legislative Solution: *What specific language needs to be added, amended, or repealed?*

[Type response here]

Safeguards: *Does this policy change or program reduction create unintended consequences for specific geographic areas or student populations? How will those be mitigated?*

[Type response here]

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: 8.30 Educational Benefit Review Policy

Agenda item type:

Action Item

Recommended Action:

That the Board approve the Educational Benefit Review Policy, Draft 1, on second and final reading.

Purpose of Memo:

Staff recommendation

Background:

USDB staff have prepared a formal policy for Board consideration that establishes a comprehensive Educational Benefit Review (EBR) process to ensure that Individual Education Programs (IEPs) for campus students are "reasonably calculated" to provide meaningful progress. This policy mandates a systematic self-assessment through routine cycles and targeted triggers, ensuring a "Golden Thread" of logical alignment between evaluations, goals, and specialized services.

Contact:

Name: Darin Nielsen
Title: Assistant Superintendent of the
Utah Schools for the Deaf and
the Blind
Phone: 801-629-4710
Email: darinn@usdb.org

Attachments:

1. 8.30 Educational Benefit Review Draft 1 June Committee



8.30 Educational Benefit Review

Date of Last Change:
Authorized By: Utah State Board of Education

1. Purpose

1.1. The EBR process is a formal self-assessment designed to ensure that Individual Education Programs (IEPs) at the Utah Schools for the Deaf and the Blind (USDB) provide meaningful educational benefit. This process aligns with the *Endrew F.* "reasonably calculated" standard, ensuring students make progress in light of their circumstances while maintaining a rigorous connection to the Utah Core Standards, the Expanded Core Curriculum (ECC), and specialized communication access.

2. Definitions

2.1. Educational Benefit: A standard determined by whether the IEP was reasonably calculated to enable a child to make progress appropriate in light of the child's circumstances.

2.2. The Golden Thread: The logical, documented connection between a student's evaluation, present levels (PLAAFP), goals, services, and demonstrated progress.

2.3. Targeted Trigger: A specific event or lack of progress that mandates an EBR outside of the routine three-year cycle.

2.4. Campus Students: Students enrolled in and attending a USDB-operated school building or specialized campus program (distinguished from Outreach students).

3. Scope and Responsibility

3.1. Scope: This policy applies exclusively to students enrolled in USDB Campus programs. Students served through USDB Outreach programs are subject to the review processes of their respective Local Education Agencies (LEAs).

3.2. Executive Oversight: The Associate Superintendent of the School for the Blind and the Associate Superintendent of the School for the Deaf hold ultimate responsibility for ensuring that EBR routine cycles and triggered reviews are conducted in accordance with this policy.

3.3. Operational Responsibility: Each school's Director is responsible for the scheduling and completion of reviews for their respective programs and for ensuring that EBR findings are communicated to the relevant IEP teams.

4. EBR Team Composition & Membership

4.1. Core Review Panel: To ensure systemic alignment, the panel shall consist of an Educational Director, Educator, and Related Service Provider.

4.2. Specialized Content Experts: Review teams must include specialists relevant to the student's profile (e.g., TOD, TVI, Audiologist, or O&M Specialist).

4.3. Objectivity Standards: Reviewers shall not have served as the student's primary service provider during the review window.

5. Frequency and Triggers for Review

5.1. Routine Cycles: Every campus student shall undergo a formal EBR at least once every three years, ideally six months prior to the student's Three-Year Reevaluation.

5.2. Targeted Triggers: An EBR shall be convened within 15 school days in the event of documented lack of progress over two reporting periods, significant transitions, or upon administrative/parent request.

6. Review Components and Academic Alignment

6.1. Utah Core Standards: The team shall evaluate if goals are linked to specific Utah Core Standards and if the IEP includes ambitious targets designed to close grade-level gaps.

6.2. The Bridge Analysis: The team must verify the connectivity between Evaluation, PLAAFP, Goals, Services, and Data.

6.3. Specialized Indicators: Benefit is measured by progress on IEP goals for language and communication, Assistive Technology (AT), and the Expanded Core Curriculum (ECC).

7. Implementation & Reporting

7.1. Findings Report: The EBR Team will issue a summary report for each file, noting "Areas of Strength" and "Required Actions."

7.2. Systemic Feedback: Aggregate data will inform annual professional development for all USDB faculty.

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: Language and Communications Plan

Agenda item type:

Action Item

Recommended Action:

MOTION FOR THE BOARD: that the Board approve a voluntary LEA pilot for developing model materials and implementing a Language and Communication Plan as a component in Individual Education Programs (IEPs) for deaf, deafblind, and hard of hearing students including a feedback and evaluation component from participants.

Purpose of Memo:

Requested by 3 or more members of the board

Background:

The purpose of this agenda item is to consider a request that has been advanced by the Disability Law Center on behalf of some parents to require Language and Communication Plans (LCP) for students that are Deaf, Deafblind, and Hard of Hearing.

This URL <https://www.youtube.com/watch?v=kEX5QSMN5FQ> is an introductory video, specifically created for Special Education Directors in Utah as a way to briefly introduce the topic that has been created by the Disability Law Center.

Contact:

Name:	Michelle Tanner	Darin Nielsen
Title:	Associate Superintendent of the Utah School for the Blind	Superintendent of the Utah Schools for the Deaf and the Blind
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Email:	michellet@usdb.org	darinn@usdb.org

Attachments:

1. FAQs on Utah's LCPs
2. February 26, 2026 Summary
3. State Communication Plans (links updated 2_9_26).xlsx - Digest
4. State Communication Plans (links updated 2_9_26).xlsx - Breakdown w Links
5. State Interview Responses on Positives and Challenges
6. Model Plan 4March2026
7. FAQs 4March2026

A Language and Communication Plan for Utah: Frequently Asked Questions about Implementation

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Why do we need this Plan?

Deaf and hard of hearing students, like all students, must have the opportunity to fully participate in all aspects of education. The Language and Communication Plan is designed to ensure that participation is a reality.

The intent of the Plan is to guide meaningful discussion among all members of the IEP or 504 team related to the student's language skills, communication access, social and instructional communication needs, and the procedures necessary to alert the student in the event of an emergency. The result of this thoughtful discussion and documentation will inform current performance levels, goals, and specially designed instruction in the IEP, and shape supports/services and accommodations/modifications provided for in an IEP or a 504 Plan.

The Plan also strengthens family engagement. While some parents are deeply involved in their child's language and communication development, others may need clearer support. The Language and Communication Plan creates a formal space for parents to bring "home" data and observations to the table, fostering shared responsibility and accountability in advancing the student's language goals.

Because deafness is a low-incidence disability, many well-meaning educators may not fully understand what effective communication access looks like in daily practice. Too often, one-time conversations during an IEP or 504 meeting do not translate into consistent implementation in the classroom. The Language and Communication Plan is designed not only to generate meaningful team understanding of *why* specific services and accommodations matter, but also to serve as a practical, accessible reference that teachers and students can easily print and use throughout the school day. The result is daily impact rather than mere documentation.

When properly completed and implemented, the Plan also helps ensure that the LEA remains in compliance with the Individuals with Disabilities Education Act (IDEA 2004), the Americans with Disabilities Act, and Section 504 of the Rehabilitation Act.

For whom does the Plan need to be completed?

IEPs

All students who are eligible for an IEP and who are also deaf, deafblind, or hard of hearing must have the Plan as part of their IEP. This includes students for whom hearing loss is a secondary disability, or who have concomitant visual impairments.

In the IEP context, deaf, deafblind, and hard of hearing are defined as stated in the Utah State Board of Education Special Education Rules II.J. (3)(a)(1); (6)(a)(1-2), and 34 CFR 300.8(c)(2-3),

(5). These definitions are nearly identical. See the USBE Special Education Rules definitions below:

Hard of Hearing is loss in hearing, whether permanent or fluctuating, that adversely affects a student's educational performance but that is not included under the definition of deafness.

Deafness is a hearing loss that is so severe that the student is impaired in processing linguistic information through hearing, with or without amplification, and that adversely affects a student's educational performance

Deafblindness means associated hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that they cannot be accommodated in special education programs solely for students with deafness or students with blindness.

So long as one of these definitions are met, and the child qualifies for an IEP, the child's IEP must contain the Plan regardless of their exact level of hearing loss, whether it's a bilateral or unilateral hearing loss, or whether hearing is affected due to a sensorineural hearing loss, conductive hearing loss, or a mixed hearing loss.

Section 504 plans

In a Section 504 context, the defining question is not whether the hearing loss or deafness affects educational performance alone, but whether the child has equal opportunity to participate in the school's programs or activities. For the purposes of requiring the Plan, the team must determine: **Does the child have a physical or mental impairment that substantially impacts his or her hearing such that he or she requires modifications, accommodations, or services (other than modifying the curriculum itself) in order to access the school's offerings the same as their non-disabled peers?** If the answer is yes, then the Plan should be used in fulfillment of, or as part of, the child's 504 Plan.

How does this apply to children who do not meet eligibility criteria but still experience language and communication barriers because of their disability?

This Plan is specifically designed to address language and communication barriers stemming from an auditory deficit, as described above. Although it is not required, the Plan *may* also benefit a team planning services for students who do not meet the above criteria, but who still experience communication barriers as a result of their disability, such as those who have limited verbal skills or other significant impairments in the areas of receptive and/or expressive

language. The IEP or 504 Team (including the parents) has discretion to decide whether or not to the Plan would be a helpful tool for those children. Should the team decide to use it, they may download it separately from the USBE website and attach it to the IEP or include it with the 504 plan.

What “triggers” the Plan to be incorporated into an IEP or 504 plan?

IEPs

On the first page of the IEP form, each district would be required to add the following question to their IEP form: “is the child deaf, deafblind, hard of hearing, as defined in 34 CFR 300.8(c)(2), (3), or (5)? Select YES even if this is not the child’s primary disability or eligibility category.” If YES is selected, then the Plan is automatically pulled up within the IEP for the team to complete. This will ensure consistency and clarity in the usage of the Plan and make it the *starting point* of the IEP meeting.

The IEP will not be able to be finalized until the Plan is completed. So long as “Communication needs addressed in IEP”, stays checked, the Plan will stay integrated as a part of student’s IEP, to be reviewed and revised each meeting (at least annually).

Section 504 plans

When developing the 504 plan, the responsibility is on the school district to identify a deaf, deafblind, or hard of hearing child and incorporate the Plan as the 504 plan, or into the 504 plan. Although the responsibility is on the school, parents or advocates of a deaf, deafblind, or hard of hearing child may also bring a copy of the Plan to the meeting.

At what point during the IEP/504 meeting is the Plan filled out?

IEPs

The Plan should be discussed and completed at the beginning of the IEP meeting, before IEP goals and services are developed. It is critical that the team fully consider the student’s communication modalities and language needs from the outset. The Plan must be individualized and grounded in thoughtful discussion of the student’s communication access, social interaction, and instructional participation. Because the information documented in the Plan directly drives annual goal development and service planning, the team must ensure clear alignment between the Communication Plan, the student’s IEP goals, and how the student actually functions within the school environment.

Section 504 plans

Similarly, the Plan should also be filled out at the beginning of a 504 Meeting.

Where is the Plan stored?

Each district's IEP system will store the Plan as part of the student's IEP. Each district will store the Plan as part of the student's 504 plan according to their Section 504 policies and practices.

However, team members, including teachers, parents, and service providers, must be able to easily access and print off the Plan. The format should be readable and designed for daily classroom reference, not just archival compliance.

Who is responsible for the Plan and who fills it out?

Early Intervention: An Early Childhood Specialist for the Deaf/Hard of Hearing (i.e., from the Parent Infant Program) would take the lead at the transition meeting to ensure that the Plan is completed for young D/HH children as they transition from early intervention services into school-aged services.

Ongoing implementation at the school-age level: LEAs manage, fill out, and are ultimately responsible for the Plans.

During the IEP process, the district's IEP facilitator, or "person of record," leads the discussion by working through the sections of the Plan to gather the necessary responses. The Plan requires data from the whole team, and pre-filling is discouraged. It would be impossible for a singular person to fill out the Plan, because no single person on the team is with the child in all contexts.

For the LEA to be successful in implementing the Plan, the Plan must be accessible and supplemented with glossary, appendix, trainings for districts, and ongoing consultation/technical assistance from the Board and/or USDB.

Who is required to be at the meeting and who is invited to the meeting?

IDEA 300.321(a) requires that the following personnel attend the IEP meeting:

- (1) The parents of the child;
- (2) Not less than one regular education teacher of the child (if the child is, or may be, participating in the regular education environment);
- (3) Not less than one special education teacher of the child, or where appropriate, not less than one special education provider of the child;
- (4) A representative of the public agency who—
 - (i) Is qualified to provide, or supervise the provision of, specially designed instruction to meet the unique needs of children with disabilities;
 - (ii) Is knowledgeable about the general education curriculum; and
 - (iii) Is knowledgeable about the availability of resources of the public agency.

- (5) An individual who can interpret the instructional implications of evaluation results, who may be a member of the team described in paragraphs (a)(2) through (a)(6) of this section;
- (6) At the discretion of the parent or the agency, other individuals who have knowledge or special expertise regarding the child, including related services personnel as appropriate; and
- (7) Whenever appropriate, the child with a disability.

A special education provider for a deaf student may include a Teacher of the Deaf, an audiologist, an educational interpreter, and/or a speech and language pathologist. If a Teacher of the Deaf is a part of the student's IEP team, then they are required to be present at all IEP meetings.

A 504 plan is created by a team of people who are familiar with the child and understand evaluation data and special services options. The team might include parent(s); student, if appropriate; general education teacher; school counselor; and the principal or administrator.

Accordingly, both IEP and 504 teams are individualized to the student. However, regardless of who is on the team, the LEA *must* invite a certified Teacher of the Deaf or a Teacher of the Deafblind (when appropriate) to attend the IEP/504 meeting when the child is being re-evaluated (at least every three years). In other words, some D/HH students may have a Teacher of the Deaf at every IEP or 504 meeting, but ALL D/HH students must have a Teacher of the Deaf (whether from the District or USDB) at least every three years.

This will encourage district accountability, ensure appropriate input from experts, and avoid overburdening Teachers of the Deaf, who cannot attend every annual 504 or IEP meeting for children they do not otherwise service.

How often is the plan reviewed/revised?

The Plan must be reviewed and revised annually, or more frequently if determined necessary by the team. Every three years, when the student is re-evaluated, a certified Teacher of the Deaf (or a certified Teacher of the Deafblind, as appropriate) must attend.

How does the Plan become a requirement?

For most effective implementation, state statute must require every eligible child in Utah incorporate the standardized Plan into their 504 plan/IEP. Of the 15 states that currently require a Language and Communication Plan, 12 have the requirement in statute.

How do we ensure the Plan is implemented effectively?

- Ensure that the law requires use of the statewide, standardized Plan, rather than have each district develop their own version. This will also streamline the process for ToDs/audiologists/other providers working across districts.
- Ensure each district integrates the Plan into their current IEP system, so that once triggered, the system will refuse to accept the IEP unless a Plan is attached. This will ensure the Plan is a seamless part of the process and not rely on the LEA remembering to download and attach the form to the IEP file.
- Ensure that team members, such as teachers and service providers, can easily access and print off the Plan. The format should be readable and designed for daily classroom reference.
- Ensure that Plan is centered on understanding for the whole team, especially parents and general education teachers. Include a glossary of terms, an appendix with additional explanations, and contact information for USDB consultation services.
- Provide supplemental training and resources to support implementation. Ensure that teams fundamentally understand the WHY and what effective implementation looks like, so that the Plan doesn't become merely a compliance exercise. Resources examples include:
 - Developing a video series/other accessible guidance to educate Plan-eligible students and their parents on the Plan
 - Spreading awareness of the Plan through back-to-school flyers or similar
 - Developing a guidance document/online modules for administrators, educators, and service providers
 - Providing ongoing technical assistance and consultation services to school districts
 - Providing training on the Plan to other agencies who provide support to families

Advisory Council for the Utah Schools for the Deaf and the Blind Meeting Summary & Recommendations February 26, 2026

The February 26th meeting began with public comments from five individuals who spoke in support of the language and communication plan agenda item. The meeting included a discussion of the Language and Communication plan, Enrichment Fund requests, JMS Springboard designation, review of Board Policy 4002 and establishing the FY2027 Enrichment Fund subcommittee members. Additionally, the Council covered the FY2025 School Land Trust final report, budget updates on Enrichment Funds and overall budget allocations as of January 30, 2026 from Deborah Jacobson and a Superintendent report from Dr. Tanner.

Language Communication Plan

Sara Williams addressed the Council about the importance of a Language Communication Plan to provide direction for deaf/hard of hearing and deafblind students in the IEP and 504 process. She clarified that districts would own the plans and teachers of the deaf would be required for re-evaluations every three years. The Council voted on a recommended motion (see below). Sara has provided two additional resources which include a [FAQ Language and Communication Plans](#) and a [Model Language and Communication Plan](#).

Motion: Recommend that the Utah State Board of Education examines options for making a Language and Communication Plan a required component of IEPs and Section 504 plans for all deaf, deafblind, and hard of hearing students in Utah, and that the Board develop this plan in collaboration with experts, impacted parents, and deaf and hard of hearing adults.

Voting was unanimous with 6 voting yes, no abstentions.

Enrichment Funds Request

The Council reviewed five Enrichment Funds requests with the addition of the Utah Hockey Club that was presented during the January meeting. A meeting will be scheduled in the next couple of weeks for the new subcommittee members to review the FY2027 Enrichment Funds projects that will include the Utah Hockey Club request.

FY2026 Enrichment Fund Projects & FY2026 Budget Update

The meeting covered several financial and operational topics. Deborah provided an update of expenditures on the FY2026 Enrichment Funds projects as of January 30, 2026. She also reviewed the USDB Line-Item Status report noting that USDB is currently within budget and has a \$3 million contingency fund.

FY2025 School Land Trust Final Report

Dr. Tanner discussed the land trust final report, mentioning that they are working towards setting up a school community council to determine how to use the remaining \$33,000 for educational technology across all campuses.

JMS Springboard Designation

Darin informed the group that the JMS middle school received a springboard school improvement designation, which qualifies it for state funding aimed at supporting non-Title I schools in Utah.

USDB Bylaws and Board Policy 4002

Darin provided updates on Policy 4002 and its bylaws, highlighting changes to Advisory Council meeting frequency, membership, and term limits. The group also addressed the need to establish an enrichment fund subcommittee to develop recommendations for FY27, with several members expressing interest in serving on the subcommittee.

Superintendent Report

Ms. Patten forwent her report due to running short on time and referred the Advisory Council Members to the TVI memo that is sent out monthly with updates on USB. Dr. Tanner presented a video created by Joshua Kinner highlighting the importance of basketball for deaf students, emphasizing socialization, skill development, and deaf culture. She noted the limited funding available and ongoing efforts to secure grants and donations. Darin mentioned the use of Superintendent Discretionary Funds to support critical activities and the Board of Education's commitment to raising funds. The group discussed the need for sustainable funding for summer camps, which are crucial for language development.

Link to YouTube video: <https://www.youtube.com/watch?v=UzC1hiONCz0&t=7s>

The next meeting is March 26, 2026

REQUIRED by statute or regulation	OPTIONAL	FORM/LEGISLATION PENDING	NO FORM
1996- Colorado (statute)	Alabama	Alaska	Arizona
2004- New Mexico (statute)	Iowa		Arkansas
2008- Indiana (regulation)	Michigan		California
2008- Nevada (statute)	Minnesota		Hawaii
2008- Pennsylvania (regulation)	Nebraska		Idaho
2012- Delaware (statute)	Ohio		Illinois
2012- Connecticut (statute- rev. 2019 to add emer. plan)	Vermont		Kansas
2013- Florida (statute)	Virginia		Kentucky
2013- North Carolina (statute)			Maine
2015- Louisiana (statute)			Maryland
2017- West Virginia (regulation)			Massachusetts
2019- New Hampshire (statute)			Mississippi
2021- Georgia (statute)			Missouri
2022- New Jersey (statute)			Montana
2025- Texas (statute- for statewide plan)			New York
			North Dakota
			Oklahoma
			Oregon
			Rhode Island
			South Carolina
			South Dakota
			Tennessee
			Utah
			Washington
			Wisconsin
			Wyoming

Breakdown w Links

State	Requires Plan as part of IEP for D/HH Learners	Year	Citation	Authorizing Text	Link to Full Statute	Link to Communication Plan	Misc.	Column1	Column2
Alabama	Optional. AL H&V has a form specifically for D/HH children to use, but no requirement to use it.		2013 Ala. Admin. Code r. 290-8-9-.05(6)(I)	All IEPs must address or include, at a minimum, the following content: (I) Consideration of the communication needs of the child, and in the case of a child who is deaf or hard of hearing, consideration of the child's language and communication needs, opportunities for direct communications with peers and professional personnel in the child's language and communication mode, academic level, and the full range of needs, including opportunities for direct instruction in the child's language and communication mode.	https://www.law.cornell.edu/regulations/alabama/Ala-Admin-Code-r-290-8-9-.05	http://alabamaparentcenter.com/web/wp-content/uploads/2022/05/ALHV-V12-Communication-Plan-Final-Draft-for-Circulation-Juliebeth.pdf			
Alaska	Pending? Currently in process (5/13/2024 passed in House, in Senate Rules Committee)	--	--	--	https://www.akleg.gov/PDF/33/Bills/HB0111C.PDF	--			
Arizona	No								
Arkansas	No								
California	No	rev. 2024	California Education Code section 56040.6	a local educational agency shall consider all of the following with respect to the full language access needs of pupils who are deaf, hard of hearing, or deaf-blind: Section 300.324(a)(2)(iv) of Title 34 of the Code of Federal Regulations, and paragraph (4) of subdivision (b) of Section 56341.1, which requires an individualized family service plan and individualized education program teams in the case of a pupil who is deaf, hard of hearing, or deaf-blind, to consider the pupil's language and communication needs, opportunities for direct communications with peers and professional personnel in the pupil's language and communication mode, academic level, and full range of needs, including opportunities for direct instruction in the pupil's language and communication mode.	https://california.public.law/codes/education_code_section_56040.6#3-section-300-324-a-2-iv-of-title-34-of-the-code-of-federal-reg		https://www.cde.ca.gov/sp/ss/dh/ab1836.asp#:~:text=This%20historic%20legislation%20acknowledges%20the,encoded%20as%20Education%20Code%2056000.5		

Breakdown w Links

Colorado	yes	1996	Colorado State Law 96-1041 C.R.S. 22-20-108 (4.7) "Deaf Child Bill of Rights" https://handsandvoices.org/articles/education/law/dcbr_revised.html	22-20-108. Determination of disability - enrollment. (4.7) (a) in developing an individual educational program pursuant to subsection (4) of this section for a child who is deaf or hard of hearing, in addition to any other requirements established by the state board, the committee shall consider the related services and program options that provide the child with an appropriate and equal opportunity for communication access, the committee shall consider the child's specific communication needs and, to the extent possible under paragraph (g) of this subsection (4.7), address those needs as appropriate in the child's individual educational program. in considering the child's needs, the committee shall expressly consider the following: (i) the child's individual communication mode or language; (ii) the availability to the child of a sufficient number of age, cognitive, and language peers of similar abilities; (iii) the availability to the child of deaf or hard-of hearing adult models of the child's communication mode or language; (iv) the provision of appropriate, direct, and ongoing language access to teachers of the deaf and hard of hearing and interpreters and other specialists who are proficient in the child's primary communication mode or language; and (v) the provision of communication-accessible academic instruction, school services, and extracurricular activities. (b) to enable a parent to make informed decisions concerning which educational options are best suited to the parent's child, all of the educational options provided by the school district and available to the child at the time the child's individual educational program is prepared shall be explained to the parent. (c) no deaf or hard-of-hearing child shall be denied the opportunity for instruction in a particular communication mode or language solely because: (i) the child has some remaining hearing; (ii) the child's parents are not fluent in the communication mode or language being taught; or (iii) the child has previous experience with some other communication mode or language. (d) nothing in this subsection (4.7) shall preclude instruction in more than one communication mode or language for any particular child. any child for whom instruction in a particular communication mode or language is determined to be beneficial shall receive such instruction as part of the child's individual educational program. (e) notwithstanding the provisions of subparagraph (ii) of paragraph (a) of this subsection (4.7), nothing in this subsection (4.7) may be construed to require that a specific number of peers be provided for a child who is deaf or hard of hearing. (f) nothing in this subsection (4.7) shall abrogate parental choice among public educational programs as provided in section 22-20-109 or articles 30.5 or 36 of this title or as otherwise provided by law. (g) nothing in this subsection (4.7) shall require a school district to expend additional resources or hire additional personnel to implement the provisions of this subsection (4.7).	https://advance.lexis.com/documentpage/teaserdocument/?pdmfid=1000516&crid=cd027b24-415a-4315-a5a2-45c58e16c840&config=014FJAAYNGJkY2Y4Zl1mNjgyLT RkN2YtYmE4OS03NTYzNzYzOTg0OGEKAFBvZENhdGFs b2d592qv2Kywlf8caKqYRO P5&pddocfullpath=%2Fshared%2Fdocument%2Fstatutes-legislation%2Furn%3Acontentitem%3A61P5-WTJ1-DYDC-J2RC-00008-00&pddocid=urn%3Acontentitem%3A61P5-WTJ1-DYDC-J2RC-00008-00&pdcontentcomponentid=234176&pdteaserkey=h3&pditab=allpods&ecom=6565kkk&earg=sr3&prid=abd14048-21fb-46cf-bb75-c291d3a1fca1	https://www.ceasd.org/wp-content/uploads/2019/11/Colorado-Communication-Plan.pdf	Historical information	
Connecticut	yes	2012, rev. 2019 to add emer. Plan	Section 11 of Public Act 12-173	The individualized education program or plan pursuant to Section 504 of the Rehabilitation Act of 1973, as amended from time to time, for any child identified as deaf or hard of hearing shall include a language and communication plan. In the case of a child with an individualized education program, the language and communication plan shall be developed by the planning and placement team for such child. Such language and	https://www.cga.ct.gov/2012/ACT/PA/2012PA-00173-R00HB-05353-PA.htm	https://portal.ct.gov/-/media/sde/special-education/annotated_language_and_communication_plan.pdf	CDOE Memo	un-annotated: https://portal.ct.gov/-/media/sde/special-education/language

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Delaware	yes	2010	Delaware Code Title 14, Chapter 31, 3112	(c) In developing an individualized education plan (IEP) for a child who is deaf or hard of hearing, in addition to any other requirements established by the Department of Education, the district or charter school shall consider the related services and program options that provide the child with an appropriate and equal opportunity for communication access. The school system shall consider the child's specific communication needs and address those needs as appropriate in the child's individualized education program. In considering the child's needs, the district or charter school shall expressly consider the following: (1) The child's individual communication mode or language; (2) The availability to the child of a sufficient number of age, cognitive, academic, and language peers of similar abilities if the parents so desires; (3) The availability to the child of deaf or hard of hearing adult models of the child's communication mode or language; (4) The provision of optimal, direct, and ongoing language access to teachers of the deaf and hard of hearing, interpreters, psychologists, educational audiologists, administrators, and other special education personnel who are knowledgeable due to specific training and who are proficient in the child's primary communication mode or language; (5) The provision of communication-accessible academic instruction, school services, and direct access to all components of the educational process, including but not limited to, recess, lunch and extracurricular social and athletic activities including the equal opportunity to participate in advanced course work and /or technical vocational course work and	https://delcode.delaware.gov/title14/c031/sc02/index.html	https://delawareoutreach.org/pdf/blank%20comm%20plan.pdf	DE Plan revised in the last year. See OLD plan linked here: https://delawareoutreach.org/pdf/CommunicationPlan.pdf
Florida	yes	2013	20 F.S. 1003.55(6)	(6)(a) In developing an individual education plan for a deaf or hard-of-hearing student, the individual education plan team must consider the student's language and communication needs, opportunities for direct communication with peers and professional personnel in the student's language and communication mode, and the student's academic level and full range of needs, including opportunities for direct instruction in the student's language and communication mode. (b) The Department of Education, in coordination with the Florida School for the Deaf and the Blind and with input from education stakeholders, including representatives of the auditory oral community, shall develop a model communication plan which shall be used during the development of a student's individual education plan. The model shall be adopted in rule by the State Board of Education and made available online to all school districts no later than December 31, 2013. The department shall provide technical assistance for using the model communication plan.	https://www.leg.state.fl.us/statutes/index.cfm?mode=View%20Statutes&SubMenu=1&App_mode=Display_Statute&Search_String=1003.55&URL=1000-1099/1003/Sections/1003.55.html	https://www.rmtcdhh.org/resources/flcp	
Georgia	yes	2021	GA Code § 20-2-152.1 (2021)	In developing an individualized education program (IEP) pursuant to Code Section 20-2-152 for a child who is deaf or hard of hearing, in addition to any other requirements established by the state board, the local school system shall consider the related services and program options that provide the child with an appropriate and equal opportunity for communication access. The school system shall consider the child's specific communication needs and, to the extent possible under subsection (g) of this Code section, address those needs as appropriate in the child's individualized education program. In considering the child's needs, the school system shall expressly consider the following: The child's individual communication mode or language; The availability to the child of a sufficient number of age, cognitive, and language peers of similar abilities; The availability to the child of deaf or hard-of-hearing adult models of the child's communication mode or language; The provision of appropriate, direct, and ongoing language access to teachers of the deaf and hard of hearing and interpreters and other specialists who are proficient in the child's primary communication mode or language; and The provision of communication-accessible academic instruction, school services, and extracurricular activities. To enable a parent or guardian to make informed decisions concerning which educational options are best suited to the parent's or guardian's child, all of the educational options provided by the school system and available to the child at the time the child's individualized education program is prepared shall be explained to the parent or guardian.	https://law.justia.com/codes/georgia/2021/title-20/chapter-2/article-6/part-3/section-20-2-152-1/	https://sped.gadoe.org/iephelpweb/DeaforHardofHearing.html	Online IEP format. Select if applicable.
Hawaii	No						
Idaho	No						

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Illinois	No, but some guidance	--	--	baked into IEP.	--	https://www.isbe.net/SPEDIEPForms/34-54N-Educational-Accommodations-and-Supports.pdf	34-54 IEP Instructions	
Indiana	yes	2008	511 IAC 7-42-6 - Developing an individualized education program; components and parent copy	(c) The CCC must also consider the following special factors when applicable: (3) In the case of a student who is deaf or hard of hearing or a student who is deaf-blind, the student's: (A) language and communication needs; (B) opportunities for direct communications with peers and professional personnel in the student's language and communication mode; (C) academic level; and (D) full range of needs; including opportunities for direct instruction in the student's language and communication mode.	https://www.law.cornell.edu/regulations/indiana/511-IAC-7-42-6	https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.in.gov%2Fhealth%2Fcdhhe%2Ffiles%2F2024_Center_Consideration-of-Special-Factors-final-fillable.docx&wdOrigin=BROWSELINK	https://www.in.gov/health/cdhhe/files/Least-Restrictive-Environment-Considerations-DHH-students.pdf	It's built into IEP. Guidance document results must be inputted into specific spot regarding communication for deaf child.
Iowa	no, but some guidance	2006	Iowa Administrative Code 281—41.324 Development, review, and revision of IEP	(4) Consider the communication needs of the child and, in the case of a child who is deaf or hard of hearing, consider the child's language and communication needs, opportunities for direct communications with peers and professional personnel in the child's language and communication mode, academic level, and full range of needs, including opportunities for direct instruction in the child's language and communication mode	https://www.legis.iowa.gov/docs/aco/chapter/281.41.pdf	https://iowaideainformation.org/wp-content/uploads/2020/06/IEP-Communication-Plan-for-Student-Who-Is-Deaf-or-Hard-of-Hearing.pdf	tori.carsrud@iowa.gov 515-577-7894	
Kansas	No							
Kentucky	No							
Louisiana	yes	2015	Act 250; RS 17: 1960	(7) Public schools shall include a communication plan in the Individualized Education Program of every student with an exceptionality who is deaf, hard of hearing, or deaf-blind. Where appropriate, public schools shall include a communication plan in the Individual Accommodation Plan for a student who is deaf, hard of hearing, or deaf-blind.	https://www.legis.la.gov/legis/law.aspx?d=80069	https://www.louisianabelieves.gov/docs/default-source/academics/tools-for-developing-communication-plans.pdf?sfvrsn=12	Comm Plan shall be used in 504 Plan as well! As appropriate.	
Maine	No							includes IDEA special considerations, but no form/plan req.
Maryland	No							
Massachusetts	No							
Michigan	Optional. "this Communication Plan is a tool for guiding discussions and is not intended as a determiner of service."	Rev. 2020	--	--	--	https://mdello.org/sites/default/files/documents/DHH/ServiceDeliveryTools/Communication/Michigan_Communication_Plan_for_Students_DHH.pdf		
Minnesota	Optional. Provides guidance/form as assistance meet legal requirements of federal law.	2016	--	--	--	IEP Discussion Guide / Minnesota Commission of the Deaf, Deafblind, and Hard of Hearing		
Mississippi	No							
Missouri	No							
Montana	No							
Nebraska	no, just guidance	92 NAC 51-007.07 B6		The IEP team shall consider the communication needs of the child, and in the case of a child who is deaf or hard of hearing, shall consider the child's language and communication needs, opportunities for direct communications with peers and professional personnel in the child's language and communication mode, academic level, and full range of needs, including opportunities for direct instruction in the child's language and communication mode.	https://regulations.justia.com/states/nebraska/education-department-of/title-92/chapter-51/section-92-51-007/	https://www.parentcenterhub.org/wp-content/uploads/repo_items/legal/cy/d6.pdf	Checklist linked isn't a comm plan per se, but a guide as to how IEP teams can create a comm plan.	

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Nevada	yes		2008	NRS 388.437: Pupils with hearing or visual impairment: Requirements for consideration in development of individualized education program for pupils with hearing impairment; use of criteria to evaluate language and literacy skills of certain pupils with hearing or visual impairment; additional considerations for best feasible instruction.	1. When developing an individualized education program for a pupil with a hearing impairment in accordance with NRS 388.419, the pupil's individualized education program team shall consider, without limitation: (a) The related services and program options that provide the pupil with an appropriate and equal opportunity for communication access; (b) The pupil's primary communication mode; (c) The availability to the pupil of a sufficient number of age, cognitive, academic and language peers of similar abilities; (d) The availability to the pupil of adult models who are deaf or hearing impaired and who use the pupil's primary communication mode; (e) The availability of special education teachers, interpreters and other special education personnel who are proficient in the pupil's primary communication mode; (f) The provision of academic instruction, school services and direct access to all components of the educational process, including, without limitation, advanced placement courses, career and technical education courses, recess, lunch, extracurricular activities and athletic activities; (g) The preferences of the parent or guardian of the pupil concerning the best feasible services, placement and content of the pupil's individualized education program; and (h) The appropriate assistive technology necessary to provide the pupil with an appropriate and equal opportunity for communication access.	https://www.leg.state.nv.us/Division/Legal/LawLibrary/NRS/NRS-388.html#NRS388Sec437	https://adsd.nv.gov/uploadedFiles/adsdnvgov/content/Boards/NCPWADHHSI/Meeings/2019/IEPcommunicationplan.Dec.18.pdf		
New Hampshire	yes		2019	186–C:32 - 186–C:35 (pg. 205)	Following the Deaf Children’s Bill of Rights, 186–C:34 specified Rulemaking: The department of education and the department of health and human services shall adopt rules under RSA 541–A to implement this chapter. At a minimum, such rules shall address: I. Qualifications of personnel providing professional services to deaf and hard-of-hearing children within the school system. II. Composition of the individualized family service plan team and the individualized education plan team. III. The individualized communication plan for every deaf and hard-of-hearing student. IV. Procedures and materials for assessment and placement. V. Psychological counseling and mental health services. VI. Evaluation of the effectiveness of programs for students who are deaf or hard of hearing. Source. 2019, 217:1, eff. July 12, 2019	https://www.education.nh.gov/sites/g/files/ehbemt326/files/inline-documents/sonh/2021-2022-nh-education-unannotated-complete.pdf	https://irp-cdn.multiscreensite.com/f788df9b/files/uploaded/ERC%20-%20Appendix%20B%20IEP%20Communication%20Plan%20for%20a%20Student%20who%20is%20Deaf%20or%20Hard%20of%20Hearing.pdf	https://nhfv.org/wp-content/uploads/2013/07/DHH-Guidelines-revised-Dec-2016-.pdf	
New Jersey	yes		Rev. 2022	P.L. 2019, Chapter 204, Deaf Student’s Bill of Rights	“School districts shall include a communication plan in the Individualized Education Program of a student who is deaf, hard of hearing, or deaf-blind, and in the educational plan prepared pursuant to section 504 of the Federal Rehabilitation Act of 1973, 29 U.S.C. s. 794 for a student who is deaf, hard of hearing, or deaf-blind.”	https://pub.njleg.gov/bills/2018/PL19/204-_.htm	https://www.nj.gov/education/special/programs/deaf/docs/NJ_CommunicationPlan_Deaf_or_HardOfHearingStudents%20_2022.pdf	"The New Jersey Communication Plan template can be included/uploaded as an attachment to the student’s IEP and referenced in the Present Levels of Academic Achievement and Functional Performance (PLAAFP) under the section for considering any special factors. The Communication Plan elements may be added to any electronic IEP program as well."	
New Mexico	yes		2004	NM Stat § 28-11C-3 (2024)	B. Since 20 U.S.C. Section 1414(d)(3)(B)(iv) of the federal Individuals with Disabilities Education Act requires that the individual education plan team consider the unique communication needs of children who are deaf or hard-of-hearing, the public education department shall develop a model "communication consideration for students who are deaf or hard-of-hearing", to become part of the individual education plan process. The model shall be disseminated to all local school districts, with training to be provided as determined by the department.	https://law.justia.com/codes/new-mexico/chapter-28/article-11c/section-28-11c-3/ https://web.ped.nm.gov/wp-content/uploads/2025/01/Bill-of-Rights-Deaf-and-Hard-of-Hearing-Children-English.pdf	https://web.ped.nm.gov/wp-content/uploads/2025/01/IEP-Communication-Considerations.pdf#:~:text=In%20developing%20each%20child%E2%80%99s%20IEP%2C%20the%20IEP%20team,communication%20mode%20%2834%20CFR%20300.324%20%28a%29%20%282%29%20%28iv%29%29		
New York	no								
North Carolina	yes		2013	Session Law 2013-119 House Bill 317 (passed)	SECTION 1. The State Board of Education shall do at least all of the following to improve the educational outcomes for North Carolina children who are deaf or hard of hearing: (2) Require an IEP team to use the Communication Plan Worksheet for Student Who is Deaf or Hard of Hearing to document (i) the team’s consideration of the language and communication needs of the individual child as the IEP is developed, reviewed, or revised, (ii) data to be used in the placement decisions made for that child, and (iii) the team’s review, at least annually, of the child’s placement and language and communication needs.	https://www.ncsd.net/ourpages/auto/2021/1/4/56778799/hb-317.pdf	https://www.dpi.nc.gov/nc-communication-plan-worksheet/download?attachment*	*NC’s Plan has been temporarily taken off the website as they update the accessibility of forms on the website (3/10/26)	
North Dakota	no								

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Ohio	Optional. As of Fall 2025 under review to potentially be incorporated as part of statewide IEP.		Ohio Administrative Code Rule 3301-51-07.	(iv) Consider the communication needs of the child, and in the case of a child who is deaf or hard of hearing, consider the child's language and communication needs, opportunities for direct communications with peers and professional personnel in the child's language and communication mode, academic level, and full range of needs, including opportunities for direct instruction in the child's language and communication mode;	https://codes.ohio.gov/ohio-administrative-code/rule-3301-51-07	https://deafandblindoutreach.org/Communication-Planning-Guide-for-Students-Who-Are-Deaf-or-Hard-of-Hearing	Contact Information:Christine Croyle, OCAI Program Director Phone: 614-401-2804 Email: christine_croyle@ocali.org		
Oklahoma	No								
Oregon	No								
Pennsylvania	Yes	Rev. 2022	22 Pa. Code § 14.131 (iii)	(iii) Deaf and hard of hearing support. Services for students with the disability of deafness or hearing impairment, who require services to address needs primarily in the area of reading, communication, accessing public and private accommodations or use of assistive technologies designed for individuals with deafness or hearing impairment. For these students, the IEP must include a communication plan to address the language and communication needs, opportunities for direct communications with peers and professional personnel in the child's language and communication mode, academic level, and full range of needs, including opportunities for direct instruction in the child's language and communication mode; and assistive technology devices and services.	https://www.law.cornell.edu/regulations/pennsylvania/22-Pa-Code-SS-14-131#:~:text=For%20these%20students%2C%20the%20IEP%20must%20include%20a,communication%20mode%3B%20and%20assistive%20technology%20devices%20and%20services.	https://www.pattan.net/forms/communication-plan-school-age?Nodeid=281211	"The primary purpose of the Communication Plan is to establish discussion among IEP team members who review the student's needs based on communication skills and access. It is to be used to complete other sections of the IEP, including accommodations, appropriate specially designed instruction, and IEP goals. Therefore, the Communication Plan must be completed prior to the development of the IEP."		
Rhode Island	No								
South Carolina	No								
South Dakota	No								
Tennessee	No								
Texas	Yes	2025	Texas Education Code Section 30.002	(c) The comprehensive statewide plan for the education of children who have visual impairments, are deaf or hard of hearing, or are deaf-blind must: (1) adequately provide for comprehensive diagnosis and evaluation of each school-age child who has a visual impairment, is deaf or hard of hearing, or is deaf-blind and adequately outline the expectations of a school district for such a child under three years of age; (2) include the procedures, format, and content of the individualized education program for each child who has a visual impairment, is deaf or hard of hearing, or is deaf-blind; (3) emphasize providing educational services to children who have visual impairments, are deaf or hard of hearing, or are deaf-blind in their home communities whenever possible; (4) include information regarding the establishment of regional day school programs for the deaf under Subchapter D and the parameters of those programs; (5) provide for flexibility on the part of school districts to meet the unique needs of children who have visual impairments, are deaf or hard of hearing, or are deaf-blind through: (A) specialty staff and resources provided by the district; (B) contractual arrangements with other qualified public or private agencies; (C) supportive assistance from regional education service centers or adjacent school districts; (D) short-term or long-term services through the Texas School for the Blind and Visually Impaired, the Texas School for the Deaf, regional day school programs for the deaf, or related facilities or programs; or (E) other instructional and service arrangements approved by the agency; (6) provide for effective interaction between the classroom setting of the child who has a visual impairment, is deaf or hard of hearing, or is deaf-blind	Texas Constitution and Statutes	https://fw.escapps.net/node/3828#citationModal7496-287307	https://spedsupport.tea.texas.gov/sites/default/files/2024-01/technical-assistance-individualized-education-iep-development.pdf	https://fw.escapps.net/node/3828	https://teadev.tea.texas.gov/sites/default/files/deafstateplan.pdf
Utah	No								

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Vermont	Optional. "can help facilitate a meaningful discussion amongst educational team members to support compliance with all related laws supporting students who are deaf, hard of hearing, or deafblind."	Rev. 2023	--	--	--	https://education.vermont.gov/sites/aoe/files/documents/ed-u-vt-communication-plan-for-students-who-are-deaf-hard-of-hearing-or-deafblind.pdf	Chris Kane, Student Support Services, at AOE. SpecialEd@vermont.gov.
Virginia	Optional. "recommended for use during the development of the initial IEP and reviewed annually as it provides a means for the IEP Team to examine whether or not the student's communication needs are being met and to plan for support."	Rev. 2019	8 VAC 20-81-110	f. In the case of a child who is deaf or hard of hearing, consider the child's language and communication needs, opportunities for direct communications with peers and professional personnel in the child's language and communication mode, academic level, and full range of needs, including opportunities for direct instruction in the child's language and communication mode; and	https://law.lis.virginia.gov/admincode/title8/agency20/chapter81/section110/	https://sbo.nn.k12.va.us/sped/doc/va-communication-plan.pdf	https://www.doe.virginia.gov/home/showpublisheddocument/24171/638044507485770000
Washington	No						
West Virginia	yes	2017	WVBE Policy 2419 (Administrative Rule)	https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=55985&Format=PDF	https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=55985&Format=PDF	IEP_CONSIDERATION_FOR_STUDENTS_WHO_ARE_DEAF_OR_HARD_OF_HEARING.pdf	Based on the 2012 December 1 Child Count data, West Virginia public schools serve 438 students whose primary exceptionality is deaf or hard of hearing. Eighty-seven percent of these students are served in their local school district. The guidance and clarifications issued by federal and state legislation ensure students who are deaf or hard of hearing have access to and participate in the general education environment, including extracurricular activities. For many of these students, interpreting services provide this access. While the field of deaf education consists of diverse philosophies, methodologies and educational options, it is universally agreed upon that the major barriers to learning associated with hearing loss are language and communication. The communication system used by the student dictates the type of interpreter needed. This document provides guidance and support to school districts, teachers, interpreters, students and parents regarding educational sign language interpreters. It is an important part of the state's ongoing efforts to ensure a high quality education is available to all students. https://wvde.us/sites/default/files/2019/04/16639_EducationalSignLanguage-Manual-v1.pdf
Wisconsin	No						
Wyoming	No						

NOTE: Interviews were conducted in Jan & Feb of 2026 by Sara Williams to learn about the effectiveness of LCPs in states that currently require them. Each interview varied in length and questions asked. This sheet focuses on positive outcomes and implementation challenges and thus only highlights a portion of responses given. Responses also largely informed FAQs document.

State	Contact Person	Positives/Outcomes	Implementation Challenges
CO	Tera Spangle-Superintendent of Colorado School for the Deaf and Blind; Jaclyn Tyrcha-Outreach Director	Tera and Jaclyn report that IEPs sometimes focus on academics, not access, and the Plan can help with that shift in focus.	CO's Plan was created in 1996 and interviewees feel that amendments are long overdue. They feel it needs to better encourage thorough language discussion and it needs a better oversight system. They have seen the Plan become a checkbox exercise for some districts. Previously, CSDB provided direct services, but only if district invited them and only for the minutes the IEP stated. They have to write a contract with the district. They didn't join the IEP meetings. Now, they are trying to switch to a consultation service and be more involved in the IEP meetings to encourage those thorough discussions.
CT	Alexa Osterhout, Associate Education Consultant	(Email response, no live interview): The state has seen the impact that the Plan has made on students, families, educators, and administrators when developed thoughtfully and according to best practice recommendations. The Plan has gone from a best practice document in 2009, to a required part of the IEP in 2012, to being a required part of all 504 Plans and IEPs for D/HH students in 2019.	We have found that supplemental training and resources to support the implementation of the LCP are necessary.
DE	Delaware Statewide Programs Director for the Deaf, Hard of Hearing, and Deaf-Blind, Melinda "Mindi" Failing	DE just re-did their Plan and is seeing more success. Their state outreach team for D/HH supports districts with the Plan by providing free consultation services. Their team consists of family educators, audiologists, and teachers of the deaf. They don't provide direct services, but hold monthly check-in meetings with district ToDs and audiologists, and help districts find and hire their own ToDs. The state also offers a 1-hour self paced learning course on the communication plan for school teachers, specialists, and staff. DoE just amended code to require that a "a licensed audiologist or a teacher of students who are deaf or hard of hearing, a certified school psychologist, and a licensed and certified speech-language pathologist" are IEP team members for determining D/HH eligibility.	Historically, the Plan was not enforced well because the form isn't built into the IEP. The law requires the team discuss certain questions, but teams haven't always consistently recorded that discussion (if they actually have it) into the IEP. Some have it as an IEP attachment, but others don't. One big problem is that teachers can't see it and use it. It's just written somewhere. So how is it going to be effective?

FL	Carmelina Hollingsworth-Director of Resource Materials and Tech Center for D/HH	Florida supports district implementation of the Plan via the Resource Materials and Tech Center for D/HH. They act as an arm of the state to get information to the districts. Although they may observe students and provide recommendations, they don't attend meetings.	The Dept of Ed sees filled-out IEPs and Language and Communication Plans, but the Center doesn't. Thus, it's been difficult for them to know how to improve their trainings on the Plan. They've been intending to create a permanent online training, but it hasn't happened yet. They also have been intending to re-do the Plan. The state has a ToD shortage: some districts contract with virtual ToDs (not as effective) and they are also training some teachers to become ToDs in small districts (not ideal, but has been effective). They've been losing about 50 or so D/HH students across the state each year: unsure if schools are not finding them, if they are successfully transitioning to a 504 with hearing technology, or just getting lost in the system.
IN	State Director of Special Education- Dr. Nancy Holsapple	Dr. Holsapple reports the LCP has been effective and is utilized by teachers. The use of Assistive technology is improving, and schools better understand how to serve kids. There's been an increase in students' ability to access not just their education, but their social environment and really be included in the mainstream setting. With regard to the form itself, Dr. Holsapple feels that the most important pieces are the academic levels section and the full range of needs section. She feels that helping the team, especially the child, understand the full range of needs including socio-emotional skill levels, helps the student to truly become independent.	None discussed regarding IN's language and communication plan.
LA	Director of Statewide Services & Support Nabihah Mujahid; Ivette Perez, Outreach Director; Parent and Advocate Rana Ottallah; Audiologist Katie Prescott	Parent and advocate Rana reports the plan helps prompt important questions about how a child accesses language across settings. Administrators similarly described the LCP as a tool that helps "paint a picture" of how a student communicates and functions in different contexts, allowing teams to identify supports more intentionally. Parent and administrators note that the plan can improve coordination among team members and ensure that language and communication access is explicitly considered during the IEP process. If it is completed with fidelity, it is impossible for any single person to fill it out (as no single person is with the child in all contexts).	Parent and advocate Rana stated that the Plan started for D/HH children, then became bigger for other exceptionalities. The standard plan became a 13-14 page plan that scared districts. It was a big, six-month effort to create it, but what got lost was the focus on D/HH children. Ultimately, districts made their own, that was very simplified. Administrators had a different perspective, stating that restricting the Plan to specific D/HH labels creates gaps. Director Mujahid said that by looking at symptoms rather than at diagnosis, the Plan stays functional. However, ultimately districts have taken it into their own hands and simplified it. Director Mujahid emphasized that teams must receive training to fundamentally understand WHY they are filling it out and what effective implementation looks like, so that it doesn't become a compliance exercise.

NJ	Wendy Eufemia, New Jersey updated their Plan in 2024. They recognize the importance of training ALL team members as a part of this process and released several new parent and team resources in the past few years since updating the Plan. These resources include "The Deaf or Hard of Hearing Child's Preschool Roadmap for Families", "Scope of Services for Professionals in Deaf Education," and "Deaf and Hard-of-Hearing Students: Considerations for Determining Placement in the Least Restrictive Environment (LRE)."	High turnover in schools and administration has been problematic in training staff. There are still people that don't know the Plan exists, especially in the 504 context. Wendy only sees the IEP data.
NM	Superintendent of New Mexico School of the Deaf, Dr. Jennifer Herbold The Language and Communication Plan really supports conversations with peers; it brings the social aspects in. The Plan is different from what the IEP already does in that it provides FOCUS. A Language and Communication Plan educates the team, includes the family, and promotes social development. Even if there's nothing to be done, the conversation at least happened, and the needs have been identified. Then you just try to get creative.	The School for the Deaf didn't love the model plan because they feel they already make all of these considerations for their students in providing a language-rich environment. They created their own, simplified form while the other districts use the model form. Some districts have seen their simplified version and want to use that. However, Dr. Herbold says this simplified form is TOO simple for districts and would not be effective in mainstream settings. She said New Mexico is planning to re-do the standardized model form soon.
NC	Sherri Vernelson, Section Chief at NC Department of Public Instruction; Virginia G. Madorin, IDEA Consultant for Deaf and Hard of Hearing at North Carolina Department of Public Instruction Before, language and communication considerations were just one checkbox on the IEP, and we found that there was no data to support that YES or NO. We wanted IEP teams to have conversations around that IEP special factor to inform the rest of the IEP process. Language and Communication Plans do not predetermine anything, but rather informs the IEP. I do think the impact is positive. It allows the team to pause and really have those conversations. When the Spirit of it is honored, it really benefits the child.	Implementation is only as good as people who've had the training and are willing to think critically about. When we implemented this form, we offered training and still do. We have a recorded webinar. Some sections of our Plan that we often have to help with: There's a section near the top focusing on modality and the language. Teams may check ASL, but it's really pidgin sign or something else the child uses. I think checking ASL in those instances may be misleading to parents. Parents will advocate for ASL but not implications of that. If student truly uses ASL, then there shouldn't be signing and talking at the same time. This becomes complicated in creating specially designed instruction. Deaf role models section—many parents question this, especially parents of children focusing on listening and spoken language. That box is often skipped over, but the intent is to facilitate conversation, not mandate these role models. The section asking for data sources to support functional communication is sometimes skipped. But we NEED details on how child communicates with peers, how they get what they want, etc. We need test scores, observations, etc. The rest of the form seems to go ok, but in those areas we have to help.

PA	Kim Stephan, Supervisor of Outreach Services at PA School for the Deaf; Maryellen Bates-Welsh, M.A., CCC-A Audiologist for PA School for the Deaf	We saw a severe lack of family engagement. 80% or so of signing children's families do not learn sign. So teams wanted more discussion/follow-up to happen during the meetings. Now, families must bring in more data to share about Language/Communication at home. So the plan now includes more community and home perspective rather than just being school-focused. Before, form would be prefilled, parents would just show up and say "looks great! Where do I sign?" with no discussion. But the Plan is easy to review and implement. It's a one-stop shop. It is its own form and can be printed out easily. Once it's filled out for mainstream students- doesn't necessarily change a lot. Although it looks overwhelming, it involves parents more and opens up communication. The standardization of the form has been essential so that it can follow the child. It has also helped our ToDs in creating self-advocacy goals and creates good protection/documentation for the districts.	We've tried to incorporate measures to avoid prefilling, although it still happens sometimes on the devices portion—what devices they use and how often they're using them, for example. One measure to prevent pre-filling is that you have to date the IEP to pre-fill. In the beginning, some teams opposed the more open-ended format, but now we don't hear those complaints as much. The narrative sections build accountability year-to-year and are really for the parent/family's data, and the checkbox sections are great for daily, educator use.
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INTRODUCTION

Communication and language are the foundations of learning. Students who are deaf, deafblind, and hard of hearing access communication in a variety of ways. It is important for teams, including students and families, to gather and share information about a student's language, communication, and access. This Language and Communication Plan is a tool to facilitate a meaningful discussion among IEP or 504 team members that leads to action.

A series of laws pertain to deaf, deafblind, and hard of hearing students. These include the Individuals with Disabilities Education Act (IDEA), Section 504 of the Rehabilitation Act of 1973, and Title II of the Americans with Disabilities Act (ADA). In addition, in November 2014, the U.S. Department of Justice and the U.S. Department of Education issued the document "Frequently Asked Questions on Effective Communication for Students With Hearing, Vision, or Speech Disabilities in Public Elementary and Secondary Schools" (DOJ-DOE FAQ). This document reflects many of the questions parents, families, teachers, service providers, and administrators may have regarding the communication needs of deaf, deafblind, and hard of hearing students.

This Language and Communication Plan incorporates these laws. It is organized into the following five sections: (i) Language and Communication Needs, (ii) Services, Hearing Technology, and Visual/Auditory Accommodations, (iii) Expanded Support Services, (iv) Continuous Communication Access, and (v) Least Restrictive Environment (LRE) Considerations. Careful consideration of each section of this plan will allow IEP and 504 teams to feel confident as they plan for successful and meaningful access for students in the educational setting.

ABOUT: This document is a model Language and Communication Plan developed for consideration by the Utah State Board of Education as a starting point for discussion and refinement. It was prepared by Sara Williams, an attorney at the Disability Law Center. The model is grounded in federal law and informed by research, conversations with states currently implementing similar plans, and feedback and collaboration from Utah administrators, parents, service providers, and members of the deaf and hard of hearing community.

For any questions or clarifications, please reach out to Sara directly at swilliams@disabilitylawcenter.org.

STUDENT INFORMATION

Student Name:

DOB:

Date:

Team members completing the plan (state name and role):

Left Ear Hearing Loss:

☐ None

☐ Mild

☐ Moderate

☐ Severe +

Right Ear:

☐ None

☐ Mild

☐ Moderate

☐ Severe +

Does the student have additional disabilities that impact communication? ☐ Yes ☐ No

If Yes, please list them here and explain the impact:

LANGUAGE & COMMUNICATION NEEDS*

Using the key below, indicate the student’s observed [language\(s\)](#). Only mark those that apply.

Key: Always = A; Often = O; Sometimes = S

Student’s Languages	Home		During Instruction		Non-Instructional Settings		Notes
	Expressive	Receptive	Expressive	Receptive	Expressive	Receptive	
American Sign Language (ASL)							
English							
Other Spoken Language(s) (specify in Notes)							
Other Signed Language(s) (specify in Notes)							
No Formal Language							

Using the key below, mark the student's observed [communication modes](#). Only mark those that apply. Key: Always = A; Often = O; Sometimes = S

Student's Communication Modes	Home		During Instruction		Non-Instructional Settings		Notes
	Exp.	Rec.	Exp.	Rec.	Exp.	Rec.	
ASL							
Communication Device							
Fingerspelling							
Gestures/Home Signs							
Lipreading							
Listening + Spoken Language							
Object/Picture System							
Tactile sign language							
Touch cues							
Written or brailled English							
Other (specify in Notes)							

What evidence is available to substantiate the student's language and communication mode is/are an effective means to support the student's access to information, people, and experiences across multiple environments? For example, assessments, observations, student/provider/caregiver input.

How does the student communicate with family members? What support is needed to increase the proficiency of family members in communicating with the student?

SERVICES, HEARING TECHNOLOGY, & VISUAL/AUDITORY ACCOMMODATIONS¹

Services:

What services are needed for the student to access the curriculum and educational environment?

- ☐ Captioning Services (e.g., [CART](#))
- ☐ [Qualified Interpreter](#)
- ☐ Speech Language Therapy
- ☐ Notetaker
- ☐ Teacher of the Deaf
- ☐ Audiology Services
- ☐ [Intervener](#)²
- ☐ Teacher of the Deafblind²
- ☐ Other

Action Plan (for each box checked, specify the service, frequency, and provider):

Hearing Technology:

Check all that apply if the student uses one or more of the following at school and/or at home:

Technology:	Sometimes at School:	Consistently at School:	Sometimes at Home:	Consistently at Home:
Bone Anchored Hearing Aid (BAHA).	☐	☐	☐	☐
Classroom Amplification System	☐	☐		
Cochlear Implant (CI).	☐	☐	☐	☐
Communication Device	☐	☐	☐	☐
Hearing Aid(s).	☐	☐	☐	☐
Hearing Assistive Technology (HAT).	☐	☐	☐	☐

Student's level of independence using hearing technology:

- ☐ Highly Dependent
- ☐ Some Physical Assistance
- ☐ Some Prompting
- ☐ Independent

Action Plan (also include plan for [monitoring hearing technology](#), if any):

Visual / Auditory Accommodations:

What accommodations are needed to support the student's communication in their school environment?

- | | |
|--|--|
| ☐ Strategic seating | ☐ Limit visual obstructions |
| ☐ Special lighting | ☐ Captioned media |
| ☐ Limit noise distractions | ☐ Visual alerts & alarms (e.g., for an emergency) |
| ☐ Tactile alerts | ☐ Obtain student's attention before giving instruction |
| ☐ Large print | ☐ Enhance lip-reading (clear masks, trim moustache, etc.) |
| ☐ Other: <input type="text"/> | |

Action Plan (for each service checked, specify who will initiate/provide the accommodation):

"The school must honor the individual's choice unless the school can prove that an alternative auxiliary aid or service provides communication that is as effective as that provided to students without disabilities and affords an equal opportunity to participate in and benefit from the service, program, or activity" (DOJ-DOE FAQ, p. 9).

Are the aids/services provided primarily based on the preference of the student with disabilities?

- ☐ Yes ☐ No Comments:

EXPANDED SUPPORT SERVICES*

The team has considered the following:

- ☐ Opportunities for Direct Communication* with peers.

Describe Opportunities:

- ☐ Opportunities for Direct Communication* with staff and other school personnel.

Describe Opportunities:

- ☐ Opportunities for Direct Instruction*.

Describe Opportunities:

CONTINUOUS COMMUNICATION ACCESS¹

Academic instruction, school services, lunchtime, and extracurricular activities in which the student participates have been identified and will be presented with communication as effective as what peers receive. Consider the full school day.

Various school settings considered:

Action Plan(s):

Has the team considered how the student will be alerted in the event of a school emergency?

This section is intended to document how the student will access alerts from the school that notify students and staff that an emergency is occurring (e.g., via a visual notifications or alarm system). It does not require the team to develop a separate emergency response protocol.

☐ Yes ☐ No

Action Plan:

LEAST RESTRICTIVE ENVIRONMENT (LRE) CONSIDERATIONS²

When determining placement, was an accurate and complete explanation of the continuum of educational placement options provided and considered based on the student's individual communication and LRE needs?

☐ Yes ☐ No

Language, communication, inclusivity and other issues considered related to LRE:

GLOSSARY OF TERMS

American Sign Language (ASL) – A visual language used by people who are deaf and hard of hearing in the United States and Canada. ASL is a language distinct from English.

Bone Anchored Hearing Aid (BAHA) - A type of hearing aid which uses bone conduction of sound to deliver better hearing. BAHAs are primarily used for people who have conductive hearing losses and people with single-sided deafness (unilateral hearing loss).



Image courtesy of Cochlear Americas

Captioned Media – Films, DVDs, online videos, etc. that have the spoken word or the visual intent of the media represented by text displayed on the screen as it is occurring.

CART – (Communication Access Realtime Translation) The simultaneous verbatim translation of the spoken word into English text using a stenotype machine, notebook computer and real time software, which displays the text on a laptop computer, monitor or screen. CART service is often provided in classroom settings for a student who is deaf or hard of hearing.

Classroom Amplification Systems – An environmental amplification system that utilizes a portable speaker system or placing a loudspeaker on one or more walls and/or ceiling. This type of system ensures that that speech signal is evenly distributed throughout the classroom with the end goal of improving the signal to noise ratio for each student in the room.

Cochlear Implant - A surgically implanted electronic device that stimulates the auditory nerve through electrodes placed in the cochlea of the inner ear, allowing some people who are deaf or hard of hearing to perceive sounds.



Communication Device - A physical object or device used to transmit or receive messages. Communication devices can range from paper and pencil to communication books or boards to apps and devices that produce voice output and/or written output.

Communication Mode – The medium or channel in which communicative intent is expressed and is received.

Hearing Aids – small electronic device worn in or behind one's ear. It makes some sounds louder so that a person with hearing loss can listen, communicate, and participate more fully in daily activities.



Expressive Communication (Exp.)- The process of expressing oneself (e.g., needs, wants, feelings, opinions) to others through verbal and nonverbal communication.

Fingerspelling - The representation of the alphabet by finger positions in order to spell out individual words or connected/longer strings of language.

Gestures – Movements of any part of the body to express or emphasize an idea, an emotion or a function. Not part of a formal communication system.

Hearing Technology Monitoring – Checking the hearing aid on an on-going basis to determine that it is functioning properly.

GLOSSARY OF TERMS

Hearing Assistive Technology (HAT) - Improves the signal-to-noise ratio for a student with hearing loss. Typically, the HAT works in conjunction with a student's personal hearing aid(s) or cochlear implant sound processor(s). There are also classroom HAT systems that may be recommended based on the age of the student and classroom set-up. HAT systems may include: remote microphone technology; frequency modulation (FM) systems; induction systems; infrared systems; special inputs for telephone, television or computers and amplified alarms and signals.

Intervener - An individual who is specially trained to provide clear and consistent sensory information to an individual who is deafblind. An intervener acts as the eyes and ears of the individual who is deaf-blind, making him or her aware of what is occurring in their environment and attaching language and meaning to all experiences.

Language - A system of conventional spoken, manual (signed), or written symbols by means of which human beings, as members of a social group and participants in its culture, express themselves.

Listening and Spoken Language (LSL) - Using hearing and technology to listen and speak. LSL offers a set of strategies and principles to teach students with hearing loss to develop spoken language through listening.

No formal language - This describes students who have had such limited access to language that they have not developed formal language. This is not the same as students using a communication device.

Object/Picture System - Objects or pictures that are used as symbols for communication by individuals who are not able to communicate using more conventional symbol systems. These objects or pictures bear an obvious and concrete relationship to the visual or tactile properties of the entities that they represent.

Pidgin Signed English (PSE) - PSE is a combination of American Sign Language (ASL) and English. ASL is a distinct language, and (like most other languages) it does not map perfectly to English. There is no equivalent for many specific words and the syntax is completely different. Culturally Deaf people, signing with each other, usually use ASL, but many people, (frequently deaf or hard of hearing) who learn to sign later in life, after hearing and using spoken English, do not sign strictly in ASL. Instead, they use a mixture of ASL and English that is known as PSE. With PSE, someone might sign most of the English words of a sentence and use approximately the English syntax.

Qualified Interpreter - an interpreter who is able to interpret between two languages or communication modes effectively, accurately, and impartially, both receptively and expressively, using any necessary specialized vocabulary. Must be qualified according to state or national standards.

Receptive Communication (Rec.) - The process of receiving and understanding a message/what others say or express.

Tactile Sign Language - A communication method based on a manual sign language or system in which the receiver's hand(s) is placed lightly upon the hand(s) of the signer to perceive the signs for learners who are deaf-blind.

Touch Cues - A touch made in a consistent manner directly on the body to communicate with a child.

A Language and Communication Plan for Utah: Frequently Asked Questions about Implementation

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ABOUT: These FAQs were developed for consideration by the Utah State Board of Education as a starting point for discussion and refinement. They were prepared by Sara Williams, an attorney at the Disability Law Center. These implementation guidelines are grounded in federal law and informed by research, conversations with states currently implementing similar plans, and feedback and collaboration from Utah administrators, parents, service providers, and members of the deaf and hard of hearing community.

For any questions/clarifications, please reach out to Sara directly at swilliams@disabilitylawcenter.org.

What does this Plan aim to accomplish?

Deaf, deafblind, and hard of hearing (“D/HH”¹) students, like all students, must have the opportunity to fully participate in all aspects of education. The Language and Communication Plan (Plan) is designed to ensure that participation is a reality.

The intent of the Plan is to guide meaningful discussion among all members of the Individualized Education Program (“IEP”) or 504 team related to the student’s language skills, communication access, social and instructional communication needs, and the procedures necessary to alert the student in the event of an emergency. The result of this thoughtful discussion and documentation will inform current performance levels, goals, and specially designed instruction in the IEP, and shape supports/services and accommodations/modifications provided for in an IEP or a 504 plan.

Because deafness is a low-incidence disability, many well-meaning educators may not fully understand what effective communication access looks like in daily practice. Too often, one-time conversations during an IEP or 504 meeting do not translate into consistent implementation in the classroom. The Plan is designed not only to generate meaningful team understanding of *why* specific services and accommodations matter, but also to serve as a practical, accessible tool that teachers and students can easily print and refer to as needed throughout the school day. The result is daily impact rather than mere documentation.

When properly completed and implemented, the Plan helps ensure that Local Education Agencies (LEAs) remain in compliance with the Individuals with Disabilities Education Act (IDEA), the Americans with Disabilities Act (ADA), and Section 504 of the Rehabilitation Act of 1973.

Doesn’t a standard IEP already accomplish this?

Federal law requires IEP teams to consider the language and communication needs of D/HH students (34 C.F.R. § 300.324(a)(2)(iv)), and Title II of the ADA requires schools to ensure effective communication (28 C.F.R. § 35.160). Yet standard IEP forms do not operationalize how to meet these mandates. The Language and Communication Plan provides that structure. Like a Behavior Intervention Plan within an IEP, it creates scaffolding and shared understanding around likely the D/HH student’s central area of need—language and communication access.

Although IDEA requires access to nonacademic activities, IEPs typically focus on curriculum access. However, language is the medium through which all instruction, social interaction, safety

¹ For the purposes of this FAQs document, “D/HH” will describe students who are deaf, hard of hearing, and deafblind.

information, and belonging occur. By creating a plan to address effective communication throughout the entire school day, the Plan helps LEAs tackle a significant compliance challenge.

For D/HH students, early and sustained language exposure is foundational, and family engagement is a critical piece of that. Unlike standard IEPs, the Plan combats language deprivation and strengthens family engagement by asking families to provide specific data from home settings, examining language development holistically, and documenting supports where needed. This process fosters shared responsibility and accountability in advancing the student's language goals.

Why now?

Utah's current landscape makes this work more urgent. Utah State University recently eliminated its Teacher of the Deaf and American Sign Language ("ASL") interpreter programs, provider vacancies persist statewide, annual increases for USDB educators are under legislative review, and LEAs must now pay for USDB services previously provided without cost. As staffing pipelines narrow and financial pressures increase, services inevitably come under scrutiny.

Parents report that long-standing supports are now being reduced without the data necessary to justify these decisions. In this environment, decisions risk being driven by availability rather than documented communication need. The LCP requires that any decision be grounded in a clear analysis of language and communication access consistent with federal law. It ensures that communication access remains deliberate, documented, and defensible during a period of significant systemic change.

For whom does the Plan need to be completed?

IEPs

The student must first qualify for an IEP under the IDEA. To qualify for an IEP, a student with a disability must:

1. Meet one of the disability categories identified in 34 C.F.R. §300.8; and
2. As a result of that disability, require special education and related services in order to benefit from public education.

Once a student is found eligible and the IEP team begins developing the IEP, a question on the first page of the IEP form would "trigger" the Plan. To ensure consistent implementation statewide, the Utah State Board of Education would require LEAs to include the following question near the beginning of the IEP form:

"Does the student have a physical or mental impairment that substantially impacts his or her hearing such that he or she requires modifications, accommodations, or services to access the

school's offerings the same as their non-disabled peers? If YES is selected, the Language and Communication Plan must be used."

Importantly, the Plan is required regardless of the specific disability category under which the student qualified for the IEP. If the box is checked YES, the student's IEP must contain the Plan regardless of their exact level of hearing loss, whether it's a bilateral or unilateral hearing loss, or whether hearing is affected due to a sensorineural hearing loss, conductive hearing loss, mixed hearing loss, or an auditory processing disorder.

Requiring this question on the first page of the IEP will ensure consistency and clarity in the usage of the Plan and make it the *starting point* of the IEP meeting. The IEP cannot be finalized until the Plan is completed. As long as the answer remains "YES," the Plan stays integrated as a part of student's IEP, to be reviewed and revised at least annually.

Ultimately, the defining question is not whether the hearing loss or deafness affects educational performance alone, but whether the student has equal opportunity to access and participate in the school's programs and activities.

Section 504 plans

The student must qualify for a 504 plan under the Rehabilitation Act of 1973. To streamline the determination of both 504 eligibility and the need for a Language and Communication Plan, the 504 team would ask:

"Does the student have a physical or mental impairment that substantially impacts his or her hearing such that he or she requires modifications, accommodations, or services to access the school's offerings in the same manner as non-disabled peers?"

This question intentionally incorporates the Rehabilitation Act's definition of disability. If the answer is **YES**, the student both:

1. Meets the definition of a student with a disability under Section 504; and
2. Requires the use of a Language and Communication Plan to ensure equal access.

In other words, the same determination that establishes 504 eligibility also establishes the need for the Plan. The Language and Communication Plan may serve as the student's 504 plan or be incorporated directly into the 504 plan.

While the responsibility rests with the LEA to identify eligible students and implement appropriate supports, parents or advocates of a deaf or hard of hearing student may also bring a copy of the Plan to the meeting to assist the team in its discussion.

How does this apply to students who do not meet eligibility criteria but still experience language and communication barriers because of their disability?

This Plan is specifically designed to address language and communication barriers stemming from an auditory deficit, as described above. Although it is not required, the Plan *may* also benefit an IEP or 504 team planning services for students who do not meet the above criteria, but who still experience communication barriers as a result of their disability, such as those who have limited verbal skills or other significant impairments in the areas of receptive and/or expressive language. The IEP or 504 team (including the parents) has discretion to decide whether or not the Plan would be a helpful tool for a student. Should the team decide to use it, they may download it separately from the USBE website and either attach it to the IEP or include it with the 504 plan.

At what point during the IEP/504 meeting is the Plan filled out?

IEPs

The Plan should be discussed and completed at the beginning of the IEP meeting, before IEP goals and services are developed. It is critical that the team fully consider the student's communication modalities and language needs from the outset. The Plan must be individualized and grounded in thoughtful discussion of the student's communication access, social interaction, and instructional participation. Because the information documented in the Plan directly drives annual goal development and service planning, the team must ensure clear alignment between the Plan, the student's IEP goals, and how the student actually functions within the school environment.

Section 504 plans

Similarly, the Plan should also be filled out at the beginning of a 504 meeting.

Where is the Plan stored?

Each LEA will store the Plan as part of the student's IEP or 504 plan, according to their IEP and 504 system and policies.

However, team members, including teachers, parents, and service providers, must be able to easily access and print off the Plan. The format should be readable and designed for daily classroom reference, not just archival compliance.

Who is responsible for developing the Plan and who is responsible for implementing the Plan?

Early Intervention: An Early Childhood Specialist for the Deaf/Hard of Hearing (i.e., from the Parent Infant Program) would take the lead at the transition meeting to ensure that the Plan is completed for young D/HH students as they transition from early intervention services into school-aged services.

Ongoing implementation at the school-age level: LEAs manage, fill out, and are ultimately responsible for the Plans.

During the IEP process, the LEA's IEP facilitator, or "person of record," leads the discussion by working through the sections of the Plan to gather the necessary responses. The Plan requires data from the whole team, and pre-filling is discouraged. It would be impossible for a singular person to fill out the Plan, because no single person on the team is with the student in all contexts.

For the LEA to be successful in implementing the Plan, the Plan must be accessible and supplemented with glossary, appendix, trainings for LEAs, and ongoing consultation/technical assistance from the Board and/or USDB.

Who is required to be at the meeting and who is invited to the meeting?

IDEA 300.321(a) requires that the following personnel attend the IEP meeting:

- (1) The parents of the child;
- (2) Not less than one regular education teacher of the child (if the child is, or may be, participating in the regular education environment);
- (3) Not less than one special education teacher of the child, or where appropriate, not less than one special education provider of the child;
- (4) A representative of the public agency who—
 - (i) Is qualified to provide, or supervise the provision of, specially designed instruction to meet the unique needs of children with disabilities;
 - (ii) Is knowledgeable about the general education curriculum; and
 - (iii) Is knowledgeable about the availability of resources of the public agency.
- (5) An individual who can interpret the instructional implications of evaluation results, who may be a member of the team described in paragraphs (a)(2) through (a)(6) of this section;
- (6) At the discretion of the parent or the agency, other individuals who have knowledge or special expertise regarding the child, including related services personnel as appropriate; and
- (7) Whenever appropriate, the child with a disability.

A special education provider for a deaf student may be a Teacher of the Deaf, an audiologist, an educational interpreter, and/or a speech and language pathologist, depending on the student's needs.

A 504 plan is created by a team of people who are familiar with the student and understand evaluation data and special services options. The team might include parent(s); student, if appropriate; general education teacher; school counselor; and the principal or administrator.

Accordingly, both IEP and 504 teams are individualized to the student. However, regardless of who is on the team, the LEA *must* invite a certified Teacher of the Deaf or a Teacher of the Deafblind (when appropriate) to attend the IEP/504 meeting when the student is being re-evaluated (at least every three years). In other words, *some* D/HH students may have a Teacher of the Deaf at every IEP or 504 meeting as a regular member of the team, but *all* D/HH students must have a Teacher of the Deaf (whether from the LEA or USDB) attend the meeting at least every three years.

This will encourage LEA accountability, ensure appropriate input from experts, and avoid overburdening Teachers of the Deaf, who cannot reasonably attend every annual 504 or IEP meeting for students they do not otherwise service.

How often is the plan reviewed/revised?

The Plan must be reviewed and revised annually, or more frequently if determined necessary by the IEP or 504 team. Every three years, when the student's IEP or 504 eligibility is redetermined, a licensed Teacher of the Deaf (or a licensed Teacher of the Deafblind, as appropriate) must attend.

How does the Plan become a requirement?

For most effective implementation, state statute must require every eligible student in Utah incorporate the standardized Plan into their 504 plan/IEP. Of the 15 states that currently require a Language and Communication Plan, 12 have that requirement in statute.

How do we ensure the Plan is implemented effectively?

- Ensure that the law requires use of the statewide, standardized Plan, rather than have each LEA develop its own version. A uniform format will streamline provider collaboration across districts, support smoother transitions when students change placements, and support consistency in compliance.
- Ensure each LEA integrates the Plan into their existing IEP system, if they use one. When possible, the Plan should be integrated into the IEP system so that once triggered (see FAQ above: "For whom does the Plan need to be completed?"), the system will refuse to

accept the IEP unless the Plan is attached and completed. This will ensure the Plan is a seamless part of the process and not rely on the LEA remembering to download and attach the form to the IEP file.

- Ensure that team members, such as teachers and service providers, can easily access and print off the Plan. The standardized Plan should be formatted to be readable and accessible for daily classroom reference.
- Ensure that Plan is centered on understanding for the whole team, especially parents and general education teachers. The standardized Plan issued to LEAs should include a glossary of terms, an appendix with additional explanations, and contact information for USDB consultation services.
- Provide supplemental training and resources to support implementation. Ensure that IEP and 504 teams fundamentally understand the WHY and what effective implementation looks like, so that the Plan doesn't become merely a compliance exercise. Resource examples include:
 - Developing a video series/other accessible guidance to educate Plan-eligible students and their parents on the Plan
 - Spreading awareness of the Plan through back-to-school flyers or similar
 - Developing a guidance document/online modules for administrators, educators, and service providers
 - Providing ongoing technical assistance and consultation services to LEAs
 - Providing training on the Plan to other agencies who provide support to families

ABOUT: These FAQs were developed for consideration by the Utah State Board of Education as a starting point for discussion and refinement. They were prepared by Sara Williams, an attorney at the Disability Law Center. These implementation guidelines are grounded in federal law and informed by research, conversations with states currently implementing similar plans, and feedback and collaboration from Utah administrators, parents, service providers, and members of the deaf and hard of hearing community.

For any questions/clarifications, please reach out to Sara directly at swilliams@disabilitylawcenter.org.

UTAH STATE BOARD OF EDUCATION

Subject:

INFORMATION: Update on Utah Schools for the Deaf and Blind

Agenda item type:

Information Item

Recommended Action:

No recommended action.

Purpose of Memo:

Committee request

Background:

Dr. Tanner and Ms. Patten will provide an update on events from Utah Schools for the Deaf and Utah Schools for the Blind.

Contact:

Name:	Michelle Tanner	Susan Patten
Title:	Associate Superintendent of the Deaf	Associate Superintendent of the Blind
Phone:	(801) 629-4711	(801) 629-4715
Email:	michellet@usdb.org	susanp@usdb.org

Attachments:

None

UTAH STATE BOARD OF EDUCATION

Subject:

INFORMATION: Advisory Council Update

Agenda item type:

Information Item

Recommended Action:

No action is recommended.

Purpose of Memo:

Committee request

Background:

Superintendent Darin Nielsen will provide an update on the Advisory Council.

Contact:

Name: Darin Nielsen
Title: Assistant Superintendent
Phone: (801) 629-4710
Email: darinn@usdb.org

Attachments:

1. May 28, 2026 Summary

Advisory Council for the Utah Schools for the Deaf and the Blind Meeting Summary & Recommendations May 28, 2026

The May 28, 2026 Advisory Council meeting focused on reviewing actions for the consent calendar, FY2027 USB enrichment fund projects, various enrichment fund requests and student presentations from trips from both deaf and blind students. Member Wood provided a brief summary of the activity from the Standing Committee before the meeting was adjourned.

FY2027 USB Enrichment Funds

Ms. Susan Patten presented a \$1.2 million request for various programs, including extracurricular activities, expanded core, LEA, family and TVI support, AT ALMC and high-tech, salaries, ERC, RESAs, campus activities, and UWIN. The Council discussed the inclusion of some USDB staff salaries for positions that provide direct support to various USB enrichment activities at length.

Motion: That the Advisory Council approve all projects and limit the salaries to \$87,500 (from the proposed \$322,000.00)

Vote: Five in favor, two opposed

Enrichment Funds Request

The Council reviewed five enrichment fund requests from parents, TVIs, and LEAs. They approved four family requests: a student to attend a BYU choral and vocal institute, a student to attend Campabilities Four Corners, a toddler to attend music classes in the summer and fall, a student to purchase a disability pass to the South Davis Recreation Center. However, they tabled a request from the Wasatch School District for Tandem eTrike loan program, requesting additional information on who would be responsible for the maintenance costs.

USB Student Presentations on Epic Roadtrip and trip to Chicago, IL

Ms. Becky Weeks provided a brief description of the two trips funded by Enrichment Funds. She described places they visited and how trips like these teach blind/visually impaired independence to be able to travel as adults. The Council heard from two students who were grateful for the opportunity to go. They hope the Advisory Council continues to support future students with similar opportunities.

USD trip to New York

Mr. Jonathan Helgesen provided a brief description of the trip to New York City and then turned the time over to 10 of the 13 students who traveled to share their personal experiences and favorite things of the trip. The two favorites amongst most students were the 911 museum and Ellis Island. They thanked the Advisory Council for the opportunity and they hope that future students will be able to have the same opportunity.

USDB Subcommittee Update

Member Wood reminded the Council of the extensive work being done to create sound policy within USDB. Over the last few months, members of the standing committee have visited local post-high programs, the DSBVI program through the Department of Workforce Services, and the Bridges program on the Ogden campus. These visits were conducted with the intent to understand the services provided for post-high students through both community resources and USDB. During their May meeting they recommended approval to the board for the following policies: Bridges and Community Readiness - Post High Program, Immunization, R277-801, School Personnel Medical Recommendations, Student Fee Schedule, Concussion & Head Injury and Grading & Graduation Credit.

Advisory Council Vacant Positions as of June 30, 2026

- (1) Person who is deaf or hard of hearing (voting)
- (2) Person who are deafblind or parent of a deafblind child (voting)
- (1) Parent of a deaf child (voting)
- (1) Person with interest or knowledge of deaf, blind or deafblind (voting)
- (1) USDB Educator of the blind (non-voting)

Link to [Advisory Council Recording](#):

The next meeting is June 25, 2026



**UTAH STATE BOARD OF EDUCATION
UTAH SCHOOL FOR THE DEAF AND THE BLIND
(USDB) COMMITTEE MEETING**

August 7, 2026

BOARD MEMBERS WILL PARTICIPATE ELECTRONICALLY

MEMBERS OF THE PUBLIC MAY VIEW THE MEETING LIVE AT
<https://www.youtube.com/c/USBEMedia>

Subject:

INFORMATION: Summary of Actions

Agenda item type:

Information Item

Recommended Action:

No action.

Purpose of Memo:

Other

Background:

Summary of actions for the most recent Utah Schools for the Deaf and the Blind Committee Meeting.

Contact:

Andrea Curtin
801-538-7515
andrea.curtin@schools.utah.gov

Leah Voorhies
801-538-7898
leah.voorhies@schools.utah.gov

Attachments:

1. 07-27-2026 USDB Standing Committee - Summary of Actions
2. USDB - Salt Lake Campus

Date: July 27, 2026



The meeting was conducted virtually via Zoom. [Link to YouTube recording.](#)

Members Present: Chair LeAnn Wood, Vice Chair Randy Boothe, Member Cindy Davis, Member Joann Brinton, and Member Erin Longacre.

USDB Committee Staff: Darin Nielsen, USDB Superintendent; Susan Patten and Michelle Tanner, USDB Associate Superintendents; Darin Goff Assistant Attorney General (AAG); Leah Voorhies, USBE Deputy Superintendent; Andrea Curtin, Secretary; Bethany Anderson and Jennifer Jackson, Interpreters.

Others Present: Jerry Record and Alex Farah, USBE IT/Media Production Specialists; Todd Call, Director of Strategic Initiatives; Dwight Overgaard, USDB Director of Operations and Facilities; Darrell Hunting, Assistant Director of DFCM; and Closed Captioning Services.

USDB Committee Chair LeAnn Wood called the meeting to order at 1:00 p.m.

INFORMATION: Public Comment

1. There was no public comment for this meeting.

1.2 ACTION: USDB Facilities Working Group Recommendations

Committee Discussion: The USDB Facilities Working Group was formed by a Board Motion: That a working group be formed, appointed by the Board Chair, comprising up to seven Board Members—preferably those from the USDB Standing Committee who wish to volunteer—along with a representative from DFCM, the USDB Superintendent, and an USDB Advisory Council member. This group will evaluate USDB capital facility needs and prepare recommendations for the full Board by August.

The USDB Facilities Working Group have met several times and completed their recommendations. They will present these recommendations to the USDB Standing Committee for approval and forward to the full Board for final approval.

Committee Action: Member Longacre moved that the Committee approve the USDB Facilities Working Group recommendations prioritized below and forward to the Board for final approval.

Overview: That the Committee recommends USBE Coordinate with the Utah Division of Facility and Construction Management's (DFCM's) to outline facility programming needs

Date: July 27, 2026

and the associated costs for the following four priorities as outlined in § 63A-5b-502; direct USDB leadership to update the agency's Capital Facilities Strategic Plan to include all recommendations; and, partner with DFCM to prepare a capital facilities legislative funding request for the Transportation and Infrastructure Appropriations Subcommittee in alignment with prioritized recommendations for the 2027 General Session, including the release of currently held funds.

Priority 1: That the Committee recommends to fund a full campus replacement, closely aligned to DFCM's Scenario 4, which includes demolishing the expired Jean Massieu School (JMS) building and removing the portable to build a brand-new, modern K-12 center of 147,700 square feet designed for 2040 growth projections.

Priority 2: That the Committee recommends the state should formalize an agreement with Washington County School District to secure the proposed land (located on the corner property of the Bloomington Hills Elementary School) for USDB, and build a permanent structure on that land to accommodate current needs and future growth, offering full education and services for Deaf/Hard-of-Hearing and Blind/Visually-Impaired students from infancy (Parent-Infant Program) through high school of 99,900 square feet designed for 2040 growth projections.

Priority 3: That the Committee recommends to extend the campus to include classrooms for middle and high school students as included, but not funded, on the original design of the campus and build additional space to provide for the ability to separate the functions currently housed in the cafeteria/gym/multi-purpose area.

Priority 4: That the Committee recommends to relocate the Utah State Instructional Materials Access Center (USIMAC) to a new, dedicated space designed to synergize with and accommodate the spatial needs of the Assistive Technology team, allowing their current space to be repurposed for student instructional needs and enabling the removal of antiquated portable units being used for student instruction.

Motion passed unanimously with Board Member Brinton absent.

MOTION FOR THE BOARD: That the Board approve the USDB Facilities Working Group overview and recommendations.

Adjournment:

Committee Action: Member Boothe moved to adjourn the meeting.

The motion passed without objection.

The meeting adjourned at 2:30 p.m.

UTAH STATE BOARD OF EDUCATION

Subject:

ACTION: USDB Facilities Working Group Recommendations

Agenda item type:

Action Item

Recommended Action:

That the Board approve the USDB Committee's recommendations based on the report from the USDB Facilities Working Group.

Purpose of Memo:

Result of legislative action

Background:

Background:

The USDB Facilities Working was formed by a Board Motion: *That a working group be formed, appointed by the Board Chair, comprising up to seven Board Members—preferably those from the USDB Standing Committee who wish to volunteer—along with a representative from DFCM, the USDB Superintendent, and an USDB Advisory Council member. This group will evaluate USDB capital facility needs and prepare recommendations for the full Board by August.*

The USDB Facilities Working Group has met several times and completed their recommendations. They will present these recommendations to the USDB Standing Committee for approval and forward to the full Board for final approval.

Contact:

Name:	LeAnn Wood	Darin Nielsen
Title:	Chair USDB Facilities Working Group	Superintendent of the Schools for the Deaf and Blind
Phone:		801-629-4710
Email:	LeAnn.Wood@schools.utah.gov	Darinn@usdb.org

Attachments:

1. Capital Calendar for FY2028 - DFCM
2. USDB Facilities Working Group Recommendations 7.22.2026_BMF

CAPITAL FACILITIES CYCLE FOR FY 2028 FUNDING

USHE Member submissions to the Office of the Commissioner of Higher Education & DFCM, kevin.enright@ushe.edu & mboyer@utah.gov = Red

USHE Member submissions to the Office of the Commissioner of Higher Education & DFCM, kevin.enright@ushe.edu & dhunting@utah.gov = Purple

State Agency submissions to the DFCM – Development, mboyer@utah.gov & helliott@utah.gov = Blue

State Agency submissions to the DFCM - Improvement, dhunting@utah.gov = Green

State Agency / Higher Ed (Dedicated & Non-Dedicated) State-Funded Capital Development Project & Land Bank

Request Due Dates

- **USHE Capital Development request form (Needs Statement) and "Project Pipeline" & "Needs Analysis" (CDP) data due to Board of Higher Ed*** **July 31, 2026**
- **Agency Capital Development request form due to DFCM** **August 28, 2026**
- **Condition Assessment from architect/engineer for renovated/demolished project** **August 28, 2026**
- **DFCM to provide final CBE to the Board of Higher Ed** **September 18, 2026**
- **Final Scope, Budget (CBE), and State Funding for Projects **** **September 25, 2026**
- **Institutional project presentation and prioritization** **October 1, 2026**
- **Approved Board of Higher Ed priorities submitted to DFCM w/ Need Statements** **October 4, 2026**
- **DFCM to submit agency project requests to GOPB for authorization to proceed with development requests** **October 31, 2026**

Non-State Funded Capital Development Project Requests Due Dates (including Revenue Bond Requests)

- **Project Needs Statement DFCM request form** **August 28, 2026**
- **DFCM to provide final CBE to the Board of Higher Ed** **November 6, 2026**
- **Institutional NSF project presentations w/ Approval from Board** **November 19, 2026**
- **Approved Board of Higher Ed priorities submitted to DFCM w/ Need Statements** **December 4, 2026**

Capital Improvements

- **Capital Improvement Request (CBE) and Scoping Documents w/ prioritization** **September 18, 2026**
- **Capital Improvement Request (CBE) and Scoping Documents w/ prioritization** **September 25, 2026**
- **DFCM CBE review and prioritization sent to Legislature** **January 15, 2027**

5 Yr. Capital Facilities Plan

- **Institutions submit updated 5 yr. capital facilities plan to OCHE** **July 31, 2026**
- **OCHE submits updated 5 yr. capital facilities plans to DFCM** **August 28, 2026**

Space Inventory Data Reporting

- **Submit USHE space inventory data according to instructions** **June 26, 2026**
- **Verify accuracy of space utilization data for AY2025-26 according to instructions** **July 31, 2026**

Space Utilization Narratives

- **Submit AY2025-26 Narrative of space utilization according to instructions** **December 4, 2026**

* Program Document must accompany project submission. Dedicated capital development projects have until December 1, 2026, to submit a Program Document to OCHE and DFCM. Non-Dedicated capital development projects must meet the original July 31, 2026, deadline to allow the Board of Higher Education to have sufficient information for their prioritization process.

** Any changes made to square feet or cost estimates after this deadline must be re-submitted through DFCM and approved by the Board of Higher Education in the January meeting.

*** All Project requests submitted to the Legislature in the 5 Year book by January 8, 2027.

USDB Capital Facility Recommendations

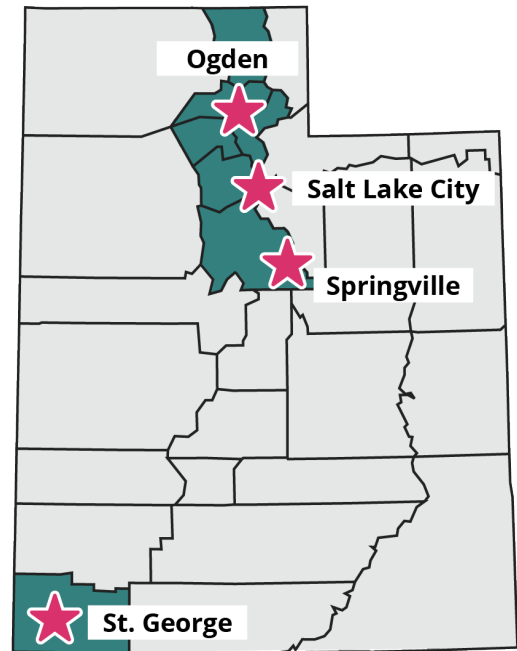
Prepared for: Utah State Board of Education

Prepared by: Utah Schools for the Deaf and Blind (USDB)
Facilities Working Group, Summer 2026

Date: July 27, 2026

Official Working Group Members (Voting)

- LeAnn Wood – Working Group Chair, Board Member, Utah State Board of Education (USBE)
- Jennie Earl – Board Member, USBE
- Cole Kelley – Board Member, USBE
- Joann Brinton – Board Member, USBE
- Randy Boothe – Board Member, USBE
- Erin Longacre – Board Member, USBE
- Darin Nielsen – Superintendent, USDB
- Darrell Hunting – Assistant Director, Division of Facilities Construction and Management (DFCM)
- Phillippe Montalette – Advisory Council Member, USDB - Deaf Community
- Aunilie Hathaway – Advisory Council Member, USDB - Blind Community



Contributing Representatives (Non-Voting)

Representatives from the following organizations participated in Working Group meetings to provide technical expertise, operational perspectives, and statewide representation. While they were not official voting members of the Working Group, their participation informed these recommendations.

- | | |
|----------------------------------|------------------------------|
| • Alpine School District | • Tooele School District |
| • Granite School District | • Weber School District |
| • Jordan School District | • Washington School District |
| • Nebo School District | • Interpreters |
| • Ogden School District | • USBE Staff |
| • Provo School District | • USDB Staff |
| • Salt Lake City School District | |

Executive Summary & Legislative Background

On May 8, 2026, the Utah State Board of Education (USBE) established a 10-member Facilities Working Group consisting of six USBE Board members, the USDB Superintendent, an Assistant Director from the Division of Facilities Construction and Management (DFCM), and two members of the USDB Advisory Council. The Working Group was charged with conducting a comprehensive review of USDB capital facility needs and presenting recommendations to the full Board by August 2026.

Pursuant to [HB 448 \(2026\)](#), Utah Code [§ 53E-8-205](#) and [§ 53E-8-410](#), the Working Group was directed to:

- Evaluate opportunities for co-location and shared use of local education agency (LEA) facilities.
- Consult with DFCM regarding programming and capital planning.
- Conduct an exhaustive review of existing facilities before recommending new capital construction.
- Develop recommendations for consideration by the Utah State Board of Education and the Transportation and Infrastructure Appropriations Subcommittee.

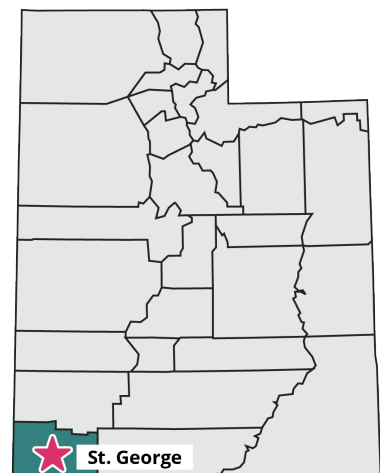
The Working Group evaluated every USDB campus, reviewed individual student space needs, and analyzed regional LEA facilities. Findings were also informed by a previous [legislative audit](#), [HOK Masterplan Report](#), [USDB's Strategic Facilities Plan](#), and more.

Findings: Evaluation of Co-Location & Space Sharing

Through consultation with local school districts, the Working Group identified one high-impact partnership opportunity that met the criteria for educational programming, long-term operational stability, and cost-effective capital investment:

- **St. George Expansion:** Expanding the USDB footprint in St. George in collaboration with Washington County School District.

Beyond this, consultation with Granite, Salt Lake City, Ogden, Nebo, and Weber school districts revealed no additional opportunities for co-location or space sharing that met these criteria. Consultation with Jordan, Canyons, and Provo school districts is ongoing but has also not identified any additional opportunities to this point. The Working Group concluded that retrofitting vacant public schools or relying on borrowed district space is generally unviable due to three core barriers:



- **High Retrofit Costs:** Available vacant spaces are located in aging infrastructure. Upgrading older buildings to support USDB programming would require significant renovation, including specialized acoustics, visual design features, assistive technology infrastructure, and other program-specific modifications. In many cases, these renovations are expected to approach or exceed the cost of constructing facilities specifically designed for USDB programs.
- **Lack of Peer Density & Specialized Design:** Existing schools built for general student populations generally meet ADA accessibility requirements, but they are not designed to support the specialized educational environments required by USDB students. Dedicated campuses provide DeafSpace and BlindSpace design principles, specialized instructional environments, and sufficient peer populations to support language acquisition, communication, and student engagement.
- **Risk of Student Displacement:** Borrowed district space lacks operational stability. Historical data shows that as local school boundaries shift or facilities consolidate, USDB classrooms are routinely relocated to suit host-district needs, causing ongoing disruption to USDB students. Multiple districts expressed a willingness to continue collaborating with USDB whenever space is available but noted they could not commit to permanent, dedicated instructional space due to changing enrollment, facility utilization, and long-term capital planning. The USDB currently utilizes dedicated space for USDB campus students in Washington County School District as well as Pinnacle Canyon Academy and utilizes these opportunities when they are feasible.

Prioritized Capital Investment Recommendations

To protect state capital investments and ensure long-term operational stability, the Working Group recommends the following campus-based capital investments, prioritized based on student health and safety, facility condition, enrollment growth, and readiness for implementation.



Priority 1: Salt Lake City Campus Replacement

- **Current Deficits:** The Salt Lake campus faces a 70,000-square-foot space deficit alongside significant safety concerns. The Jean Massieu School (JMS) building (constructed in the 1940s) has reached the end of its useful lifespan, and the "Little White House" facility is completely unusable.
- **Primary Concerns:** Severe overcrowding, critical acoustic/spatial limitations, and structural safety risks.
- **Recommended Action:** Fund a full campus replacement, closely aligned to DFCM's Scenario 4, which includes demolishing the expired JMS building and removing the portable to build a brand-new, modern K-12 center designed for 2040 growth projections. (see Appendix A)

Priority 2: St. George Campus Expansion

- **Current Deficits:** Consistent population and student enrollment growth in Southern Utah has outpaced regional facility capacity. Current operations rely heavily on inadequate modular units with fragmented learning spaces.
- **Partnership Opportunity:** Washington County School District has identified a two-acre parcel adjacent to Bloomington Hills Elementary School that could accommodate a permanent USDB campus. The location provides convenient access to neighboring elementary, middle, and high schools, supporting opportunities for shared programming and student participation in general education settings when appropriate.
- **Recommended Action:** The state should formalize an agreement with Washington County School District to secure the proposed land (located on the corner property of the Bloomington Hills Elementary School) for USDB, and build a permanent structure on that land to accommodate current needs and future growth, offering full education and services for Deaf/Hard-of-Hearing and Blind/Visually-Impaired students from infancy (Parent-Infant Program) through high school. *(see Appendix C)*

Priority 3: Springville Campus Completion

- **Current Deficits:** Regional growth in Utah County has created immediate space compression. The initial construction phase did not include planned middle school and high school instructional space, resulting in reliance on combined learning space for students in multiple grade levels, as well as limited storage space for student assistive technology and adaptive equipment.
- **Primary Concerns:** Missing middle and high school classrooms, inadequate shared-use spaces, insufficient library space, and a lack of locker rooms, changing areas, and shower facilities to support physical education instruction.
- **Recommended Actions:**
 1. Extend the campus to include classrooms for middle and high school students as included, but not funded, on the original design of the campus. *(see Appendix B)*
 2. Build additional space to provide for the ability to separate the functions currently housed in the cafeteria/gym/multi-purpose area.

Priority 4: Ogden Campus Reorganization

- **Current Deficits:** As one of USDB's oldest facilities, Ogden has undergone piecemeal space reallocations that hinder optimal campus flow. Projected enrollment growth will exacerbate current space strains.

- **Recommended Action:** Relocate the Utah State Instructional Materials Access Center (USIMAC) to a new, dedicated space on or near the Ogden campus, designed to synergize with and accommodate the spatial needs of the Assistive Technology team, allowing their current space to be repurposed for student instructional needs and enabling the removal of antiquated portable units being used for student instruction.

Next Steps & General Recommendations

The Working Group recommends that the Utah State Board of Education:

- Coordinate with DFCM to outline facility programming needs and the associated costs as outlined in [§ 63A-5b-502](#).
- Direct USDB leadership to update the agency's Capital Facilities Strategic Plan to include all recommendations.
- Partner with DFCM to prepare a capital facilities legislative funding request for the Transportation and Infrastructure Appropriations Subcommittee in alignment with prioritized recommendations for the 2027 General Session, including the release of currently held funds.

APPENDIX A: Salt Lake City Campus Conceptual Site Plan (Scenario 4)

This site plan illustrates a potential phased replacement and expansion for the Salt Lake City campus, designed to eliminate the current space deficit and accommodate growth projections through 2040.



APPENDIX B: Springville Campus Expansion Floor Plan

This architectural plan illustrates a potential expansion for the Springville campus, highlighting additional classrooms.



APPENDIX C: St. George Potential Campus Location

This aerial site map illustrates a parcel of land for a potential new USDB St. George campus. The location highlights exceptional proximity to a complete feeder network of neighborhood public schools.



UTAH STATE BOARD OF EDUCATION

Subject:

Every Student Succeeds Act (ESSA) Waiver

Agenda item type:

Action Item

Recommended Action:**Purpose of Memo:****Background:**

Every Student Succeeds Act (ESSA)

Overview

The Every Student Succeeds Act (ESSA), passed by Congress and signed by the President in December 2015, is the most recent reauthorization of the Elementary and Secondary Education Act (ESEA), first signed into law in 1965 and reauthorized periodically since then. ESSA is the governing law of the nine title programs dealing with elementary and secondary education federal funding and student civil rights. Utah receives a little over \$300 million in federal funding for public schools, much of it tied into ESSA.

[Every Student Succeeds Act \(ESSA\)](#)

United States Department of Education

Utah's ESSA State Plan

The Utah State Board of Education (USBE) submitted an amendment to Utah's current ESSA state plan. The amendments pertained ONLY to ESSA Sections Title 1A and Title III. The state plan went through a number of revisions as state officials worked with federal reviewers to clarify how the state plans met with ESSA's statutory requirements. Utah's current state plan was approved by the United States Department of Education on **June 24, 2026**.

[Utah's Revised ESSA State Plan 2026](#)

Utah's Approved State Plan

History

The United States Department of Education requested clarification in December of 2017 and Utah resubmitted its plan in February 2018 in response to Department questions.

The Utah State Board of Education requested a waiver from the United States Department of Education provision ESSA 1111(c)(4)(E)(ii): Improving Basic Programs Operated by Local Educational Agencies, which requires states to count students who opt out of statewide proficiency testing as non-proficient for school accountability purposes.

The Utah State Legislature [Title 53G-6-803: Parental Right to Academic Accommodations](#) does not permit Utah State Board of Education to allow a negative impact upon school grades because of students opting out of statewide tests. Utah's waiver sought to only include students who take the tests for school accountability, but in May 2018 the department *denied the waiver* ruling that non-tested students must be counted as non-proficient students for school accountability.

Contact:

Name:

Title:

Phone:

Email:

Attachments:

None

UTAH STATE BOARD OF EDUCATION

Subject:

Streamline Educator Licensing

Agenda item type:

Action Item

Recommended Action:**Purpose of Memo:****Background:****Contact:**

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Executive Coordinator, Educator Licensing
Utah State Board of Education
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Leah Voorhies, PhD
Deputy Superintendent of Student Achievement
(State Director of Special Education)
Utah State Board of Education
leah.voorhies@schools.utah.gov
801-538-7898

Attachments:

None