

Additional Documents
Math Curriculum Adoption Committee
K-5, 6-8, High School
Meeting #4



Cheyenne Traditional K-5 Math Adoption Criteria

CHEYENNE TRADITIONAL K-5 MATH CURRICULUM ADOPTION COMMITTEE

SUSD's VISION: Engaging all students in world-class, future-focused learning.

SUSD's MISSION: We inspire, motivate, and empower all to think critically, act collaboratively, and embrace diversity for a life of intellectual exploration, community engagement, and personal growth.

Cheyenne Vision Statement: To create a culture of shared and active leadership so that each member brings their own areas of expertise and works collaboratively to sustain improvements in teaching, in learning, and throughout the community.

Cheyenne Mission Statement: To guide and challenge learning for all students through a learning environment that gives priority to basic traditional skills and values in developing respect, responsibility, honesty, integrity, leadership, and citizenship.

Criteria for determining the quality of instructional materials include:

Accuracy and Alignment:

- Aligned to Arizona Mathematics Standards (must provide an explicit Arizona Mathematics Standards alignment document).
- Curriculum is research-based with supporting evidence.
- Curriculum is teacher directed and follows a linear and sequential order.
- Appropriate lessons, activities, and assessments that prepare students for future grade level standards and state standardized assessments.
- Evidence of efficacy of your curriculum in improving student learning outcomes.

Engagement and the Ability to Meet Student Needs

- Engages students in rigorous learning opportunities and higher level thinking tasks that show a real-world application of learned skills.
- Provides guidance and resources for teachers to scaffold and differentiate instruction (both support and extensions).
- Curriculum utilizes manipulatives and visual representations to build conceptual understanding.
- Curriculum includes an embedded daily math fact fluency
- Includes developmentally appropriate diagnostic, formative and summative assessments.

Ease of Use and Support

- Layout and organization of curriculum materials contribute to ease of use.
- Curriculum includes a textbook or consumable for students.
- Resources availability in multiple formats for both students and teachers (hard-copy, digital, etc.) is preferred.
- Curriculum is designed to spiral and offers guided and independent practice and application of current and prior learning.
- Professional development is provided to support implementation of curriculum.

Vendor Criteria List #1

Alignment to State Standards:

- Ensures that the curriculum aligns with the Arizona State Math Standards
- Incorporates the Standards for Mathematical Practices in every lesson

Differentiation:

- Offers teachers strategies to address diverse learner needs
- Supports teachers in sequencing lessons for effective progression of knowledge
- Creates chances for struggling students to revisit and master content
- Enables advanced students to explore topics more thoroughly

Procedural Support for Students:

- Encourages the enhancement of students' procedural skills through sequential activities that logically connect across units, spiraling in big ideas, and ensuring ample time for application problems
- Provides opportunities for practicing mathematical fluency within lessons
- Easy to access digital resources that are student and parent user-friendly
- Provides resources for students to self-monitor their own progress and motivates them to stay actively engaged

Procedural Support for Teachers:

- Encourages educators to utilize various resources available in the program to enhance learning
- Inclusion of key materials such as handouts, worksheets for students and teachers, and other instructional tools needed to meet the specified learning objectives.
- Provides several professional development opportunities for teachers to effectively implement the program.

Assessments:

- Materials incorporate student assessments (like homework, observation checklists, project-based tasks, tests, and quizzes) to demonstrate proficiency; strategies for assessing prior mathematical knowledge and vocabulary; methods for identifying common errors and misconceptions
- Varied assessments across different knowledge levels
- Editable formative and summative assessments for teachers
- Item Bank provided so teachers can create and customize their own assessments
- Ongoing review and practice opportunities with feedback given to students

Organization:

- Organization of the materials should include essential questions to highlight key concepts, relevant illustrations and graphs, vocabulary, clear learning objectives and stated standards, and a comprehensive and user-friendly teacher's edition.

Accessibility:

- Text is unbiased and considerate of various individual and cultural differences, including language proficiency. It ensures inclusivity by accommodating these differences effectively.

Technology:

- User-friendly and easily accessible
- Enhances instruction and assessment
- Supports teachers in developing their expertise
- Integrates engaging technology like interactive tools and virtual manipulatives, and includes resources for communication, differentiation, and assessment of student understanding, all while providing guidance for effective use of technology and maintaining an accessible, user-friendly online platform.

2018-2019 SUSD Pre-K- 5 Math – Textbook Adoption Rubric

Grade Level or Course: _____ Your Role (Teacher/Admin/Parent) _____

Publisher/Author: _____

Text Name: _____

Tier 1

Aligns to 2016 AZ State Standards

- spends majority of instructional time on core standards
- Addresses standards to the full depth necessary
- Logical sequencing, coherent flow
- Integrates use of Mathematical practices

1 3 7 10

Evidence:

Rigorous and Relevant Content

- Includes real world problem solving
- higher-level thinking
- discovery-based lessons
- extensions of learned skills available
- depth and breadth of problems

1 3 7 10

Evidence:

Differentiated Resources- Universal Access for all

- provides scaffolding and interventions needed for teachers to support all learners
- enrichment and remediation opportunities included
- ELs, Gifted, Special education needs addressed

1 3 7 10

Evidence:

Appropriate Resources to Support Student Learning

- online teacher and student materials
- interactive student activities
- digital content presentations
- Provides clear support and guidance to support teaching and learning

1 3 7 10

Evidence:

Tier 1 Subtotal: _____

2018-2019 SUSD Pre-K- 5 Math – Textbook Adoption Rubric

<u>Tier 2</u>			
Instructional resources to support multiple teaching methods ○ A spectrum of depth of knowledge (DOK 1-3) question and problems included ○ formative and summative assessments ○ reproducible, editable or consumable documents included ○ project-based learning opportunities ○ data analysis and action tools	1	3	5
Evidence:			
Spiral Review ○ Contains opportunities to revisit previous learning ○ Continued practice provided ○ Fluency practice provided to build automaticity preferred	1	3	5
Evidence:			
High quality physical student resource ○ Student consumables ○ Resource will provide clear and sufficient guidance to support teaching and learning ○ Include material for engaging students in productive struggle ○ Legally reproducible, editable, consumable resources (worksheets, assessments, practice), for teacher to differentiate and tailor.	1	3	5
Evidence:			
Tier 2 Subtotal: _____			

2018-2019 SUSD Pre-K- 5 Math – Textbook Adoption Rubric

Tier 3

Manipulatives

- Teacher materials offer suggestions of modeling and instructing using manipulatives
- Hands on opportunities

1 2 3

Evidence:

Continued Support

- Publisher will provide continued support through professional development, online trainings, and customer service/help desk
- Supports diverse cultural and linguistic backgrounds, interests, and styles.
- Professional development and training provided

1 2 3

Evidence:

Teacher and parent information and support

- Clear directions for teacher instruction
- Provides opportunities to learn more about the topics covered and strategies used
-

1 2 3

Evidence:

Tier 3 Subtotal: _____

Tier 1 Subtotal: _____

Tier 2 Subtotal: _____

Tier 3 Subtotal: _____

Grand Total: _____

SUSD Math Textbook Adoption Evaluation Rubric

Number of Reviewer:

Name of Curriculum Materials:

Rubric for answering questions about Overarching Considerations:

0 points - Not Found The curriculum materials do not support this element.	1 point - Low The curriculum materials contain limited support for this element; the support is not embedded or consistently present within resource(s).	2 points - Medium The curriculum materials contain support for this element, but it is not always embedded or consistently present within resource(s).	3 points - High The curriculum materials contain embedded support for this element so that it is consistently present within resource(s).
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Alignment: To what extent do the materials ...	0, 1, 2, 3	Comments
1. Provide alignment to the Arizona State Math Standards?		
2. Utilize the Standards for Mathematical Practices within each lesson?		
3. Align to the College Board AP Statistics scope and sequence?		
Overall score for Alignment	__ / 9	

Differentiation: To what extent do the materials...	0, 1, 2, 3	Comments
4. Provide teachers with strategies for meeting the needs of a range of learners?		
5. Provide instructional support to help teachers sequence or scaffold lessons so that students move from what they know to what they need to know?		
6. Provide opportunities and resources for struggling students to review materials and remediate content not yet mastered (Tier 2 support)?		
7. Provide opportunities for advanced students to investigate content at greater depth?		
Overall score for Differentiation:	__ / 12	

Student Resources - To what extent do the materials...	0, 1, 2, 3	Comments
8. Support the development of students' proficiency with procedural skills and practice of mathematical fluency?		
9. Include student activities that spiral big ideas within and across units in a logical way that supports understanding/procedural skills?		
10. Provide opportunities to spend sufficient time with application problems within lessons?		
Overall score for Student Resources:	___/ 9	

Teacher Resources - To what extent do the materials...	0, 1, 2, 3	Comments
11. Include essential learning materials, handouts, student and teacher text, and other instructional tools necessary to achieve the provided or indicated learning objectives?		
12. Offer multiple Professional Development opportunities for teachers when implementing this program?		
Overall score for Teacher Resources:	___/ 6	

Assessment: To what extent do the materials ...	0, 1, 2, 3	Comments
13. Include accompanying assessments of student learning (such as homework, observation checklists, project-based learning, extended tasks, tests, and quizzes) that provide evidence regarding students' proficiency?		
14. Provide strategies and resources for gathering information about students' prior knowledge of mathematical background and vocabulary?		
15. Provide strategies for teachers to identify common student errors and misconceptions?		
16. Assess students at a variety of knowledge levels (e.g., memorization, understanding, reasoning, problem-solving)?		
17. Provide customizable assessments for teacher use?		
18. Provide an item bank for teachers to choose from to edit and create tests?		
19. Provide opportunities for ongoing review and practice with feedback related to learning concepts and skills?		
Overall score for Assessment:	___/ 21	

Organization: To what extent do the materials...	0, 1, 2, 3	Comments
20. Include Essential Questions in the chapter or lesson to guide students in recognizing “big ideas”?		
21. Contain illustrations, graphs, charts, and/or demonstrations that are current, correlated, and accurate and are presented in a variety of formats?		
22. Include learning objectives in chapters or lessons to guide students in recognizing what they should be able to demonstrate?		
23. Include a well-organized easy to use and comprehensive teacher's edition?		
Overall score for Organization:	___ / 12	

Accessibility:	0, 1, 2, 3	Comments
24. The text is free from bias (e.g. gender, cultural).		
25. The text provides accommodations for individual and cultural differences.		
26. The text provides accommodations for differences in language proficiency.		
Overall score for Accessibility:	___ / 9	

Technology: To what extent do digital materials...	0, 1, 2, 3	Comments
27. Provide content that enhances instruction and assessment?		
28. Provide content support for teachers to further develop expertise?		
29. Integrate technology such as interactive tools, virtual manipulatives/objects, and software that engages students?		
30. Include technology and/or artificial intelligence resources to assist and provide instant feedback to students to support their learning?		
31. Include opportunities to assess student content understandings and knowledge of procedural skills using technology?		
32. Include or reference technology that provides teachers additional materials to differentiate instruction for students?		
33. Include teacher guidance for the mindful use of embedded technology to support and enhance student learning?		
34. Include an online platform that is easy to access and accessible ?		
35. Includes gamification opportunities to motivate student learning?		
36. Synchronizes with Google Classroom and/or IXL?		
Overall score for Technology:	___ / 30	

References:	0, 1, 2, 3	Comments
37. Customer service is reliable and questions, feedback, and assistance can be made frequently and in a timely and appropriate manner.		
38. As technology continues to advance the vendor will maintain updates to the platform and communicate changes within the resource.		
Overall score for References:	___/ 6	

Final Score Totals for Resource	Score	Additional Comments
Overall score for Alignment	___/ 9	
Overall score for Differentiation	___/ 12	
Overall score for Student Resources	___/ 9	
Overall score for Teacher Resources	___/ 6	
Overall score for Assessment	___/ 21	
Overall score for Organization	___/ 12	
Overall score for Accessibility	___/ 9	
Overall score for Technology	___/ 30	
Overall score for References	___/ 6	
Grand Total	___/ 114	

Secondary Science Curriculum Adoption Curriculum Evaluation Rubric



Committee Member ID _____

Material Number _____

Grade/Course Alignment _____

Publisher/Vendor _____

Material/Text Name _____

Category I: 3D Design

The lesson/unit is designed so students make sense of phenomena and/or design solutions to problems by engaging in student performances that integrate the three dimensions of the AZSS.

Evidence
of Quality

Comments

1A. Explaining Phenomena/Designing Solutions: Making sense of phenomena and/or designing solutions to a problem drive student learning.

- i. Student questions and prior experiences related to the phenomenon or problem motivate sense-making and/or problem solving.
- ii. The focus of the lesson is to support students in making sense of phenomena and/or designing solutions to problems.
- iii. When engineering is a learning focus, it is integrated with developing disciplinary core ideas from physical, life, and/or earth and space sciences.

0 1 2 3

1B. Three Dimensions: Builds understanding of multiple grade-appropriate elements of the SEPs, DCIs, and CCCs *that are deliberately selected to aid student sense-making of phenomena and/or designing of solutions.*

- i. Provides opportunities to *develop and use* specific elements of the Science and Engineering Practices, SEP(s). Curriculum is consistently laboratory/investigation-based.

0 1 2 3

- ii. Provides opportunities to *develop and use* specific elements of the Core Ideas, DCI(s). Core Ideas align to grade level/course Arizona Science Standards. If applicable, core ideas align to AP CollegeBoard, Dual Enrollment, and/or International Baccalaureate competencies.

0 1 2 3

- iii. Provides opportunities to *develop and use* specific elements of the CCC(s).

0 1 2 3

1C. Integrating the Three Dimensions: Student sense-making of phenomena and/or designing of solutions requires student performances that integrate elements of the SEPs, CCCs, and DCIs

0 1 2 3

1D. Scientific Accuracy: Uses scientifically accurate and grade-appropriate scientific information, phenomena, and representations to support students' three-dimensional learning.

0 1 2 3

1E. Multiple Science Domains: *When appropriate*, links are made across the science domains of life science, physical science and Earth and space science.

- i. Disciplinary core ideas from different disciplines are used together to explain phenomena.

0 1 2 3

1F. Interdisciplinary: Provides grade-appropriate connections to other contents (Mathematics, English Language Arts, History/Social Sciences, Technical Subjects, etc.).

0 1 2 3

Rating for Category I: 3D Design

14-24 points: Move on to Categories II and III as long as there are no 0s or 1s in criteria A-D
0-13 points: The review should stop.

 /24

Category II: Instructional Supports

The lesson/unit supports three-dimensional teaching and learning for ALL students by placing the lesson in a sequence of learning for all three dimensions and providing support for teachers to engage all students.

	Evidence of Quality	Comments
2A. Relevance and Authenticity: Engages students in authentic and meaningful scenarios that reflect the practice of science and engineering as experienced in the real world. i. Students experience phenomena or design problems as directly as possible (firsthand or through media representations). ii. Includes suggestions for how to connect instruction to the students' home, neighborhood, community and/or culture as appropriate. iii. Provides opportunities for students to connect their explanation of a phenomenon and/or their design solution to a problem to questions from their own experience. iv. Resources spark student interest.	0 1 2 3	
2B. Student Ideas: Provides opportunities for students to express, clarify, justify, interpret, and represent their ideas and respond to peer and teacher feedback orally and/or in written form as appropriate.	0 1 2 3	
2C. Building Progressions: Identifies and builds on students' prior learning in all three dimensions, including providing the following support to teachers: i. Explicitly identifying prior student learning expected for all three dimensions ii. Clearly explaining how the prior learning will be built upon.	0 1 2 3	
2D. Unit Coherence: Lessons fit together to target a set of performance expectations. i. Each lesson builds on prior lessons by addressing questions raised in those lessons, cultivating new questions that build on what students figured out, or cultivating new questions from related phenomena, problems, and prior student experiences. ii. The lessons help students develop toward proficiency in a targeted set of performance expectations.	0 1 2 3	
2E. Differentiated Instruction: Provides guidance for teachers to support differentiated instruction by including: i. Supportive ways to access instruction, including appropriate linguistic, visual, and kinesthetic engagement opportunities that are essential for effective science and engineering learning and particularly beneficial for multilingual learners and students with disabilities. ii. Extra support (e.g., phenomena, representations, tasks) for students who are struggling to meet the targeted expectations. iii. Extensions for students with high interest or who have already met the performance expectations to develop deeper understanding of the practices, disciplinary core ideas, and crosscutting concepts.	0 1 2 3	
2F. Teacher Support for Unit Coherence: Supports teachers in facilitating coherent student learning experiences over time by: i. Providing strategies for linking student engagement across lessons (e.g. cultivating new student questions at the end of a lesson in a way that leads to future lessons, helping students connect related problems and phenomena across lessons, etc.). ii. Providing strategies for ensuring student sense-making and/or problem-solving is linked to learning in all three dimensions. iii. Resources are available in multiple formats for both students and teachers.	0 1 2 3	
2G. Scaffolded differentiation over time: Provides supports to help students engage in the practices as needed and gradually adjusts supports over time so that students are increasingly responsible for making sense of phenomena and/or designing solutions to problems. Supports collaboration, communication, creativity and critical thinking.	0 1 2 3	
Rating for Category II: Instructional Supports		___/21

Category III: Monitoring Student Progress

The lesson/unit supports monitoring student progress in all three dimensions of the NGSS as students make sense of phenomena and/or design solutions to problems.

	Evidence of Quality	Comments
3A. Monitoring 3D student performances: Elicits direct, observable evidence of three-dimensional learning; students are using practices with core ideas and crosscutting concepts to make sense of phenomena and/or to design solutions.	0 1 2 3	
3B. Formative: Embeds formative assessment processes throughout that evaluate student learning to inform instruction.	0 1 2 3	
3C. Scoring guidance: Includes aligned rubrics and scoring guidelines that provide guidance for interpreting student performance along the three dimensions to support teachers in (a) planning instruction and (b) providing ongoing feedback to students.	0 1 2 3	
3D. Unbiased tasks/items: Assesses student proficiency using methods, vocabulary, representations, and examples that are accessible and unbiased for all students.	0 1 2 3	
3E. Coherent Assessment system: Includes pre-, formative, summative, and self-assessment measures that assess three-dimensional learning.	0 1 2 3	
3F. Opportunity to learn: Provides multiple opportunities for students to demonstrate performance of practices connected with their understanding of disciplinary core ideas and crosscutting concepts and receive feedback	0 1 2 3	
Rating for Section III: Monitoring Student Progress		__/18

Category Ratings			TOTAL SCORE
Category I: 3D Design	Category II: Instructional Supports	Category III: Monitoring Student Progress	
__/24	__/21	__/18	__/63

Notes

I. Alignment to the Depth of the CCSS	II. Key Shifts in the CCSS	III. Instructional Supports	IV. Assessment
<i>The lesson/unit aligns with the letter and spirit of the CCSS:</i> ○ Targets a set of grade-level CCSS mathematics standard(s) to the full depth of the standards for teaching and learning. ○ Standards for Mathematical Practice that are central to the lesson are identified, handled in a grade-appropriate way, and well connected to the content being addressed. ○ Presents a balance of mathematical procedures and deeper conceptual understanding inherent in the CCSS.	<i>The lesson/unit reflects evidence of key shifts that are reflected in the CCSS:</i> ○ Focus: Lessons and units targeting the major work of the grade provide an especially in-depth treatment, with especially high expectations. Lessons and units targeting supporting work of the grade have visible connection to the major work of the grade and are sufficiently brief. Lessons and units do not hold students responsible for material from later grades. ○ Coherence: The content develops through reasoning about the new concepts on the basis of previous understandings. Where appropriate, provides opportunities for students to connect knowledge and skills within or across clusters, domains and learning progressions. ○ Rigor: Requires students to engage with and demonstrate challenging mathematics with appropriate balance among the following: – Application: Provides opportunities for students to independently apply mathematical concepts in real-world situations and solve challenging problems with persistence, choosing and applying an appropriate model or strategy to new situations. – Conceptual Understanding: Develops students’ conceptual understanding through tasks, brief problems, questions, multiple representations and opportunities for students to write and speak about their understanding. – Procedural Skill and Fluency: Expects, supports and provides guidelines for procedural skill and fluency with core calculations and mathematical procedures (when called for in the standards for the grade) to be performed quickly and accurately.	<i>The lesson/unit is responsive to varied student learning needs:</i> ○ Includes clear and sufficient guidance to support teaching and learning of the targeted standards, including, when appropriate, the use of technology and media. ○ Uses and encourages precise and accurate mathematics, academic language, terminology and concrete or abstract representations (e.g., pictures, symbols, expressions, equations, graphics, models) in the discipline. ○ Engages students in productive struggle through relevant, thought-provoking questions, problems and tasks that stimulate interest and elicit mathematical thinking. ○ Addresses instructional expectations and is easy to understand and use. ○ Provides appropriate level and type of scaffolding, differentiation, intervention and support for a broad range of learners. – Supports diverse cultural and linguistic backgrounds, interests and styles. – Provides extra supports for students working below grade level. – Provides extensions for students with high interest or working above grade level. <u><i>A unit or longer lesson should:</i></u> ○ Recommend and facilitate a mix of instructional approaches for a variety of learners such as using multiple representations (e.g., including models, using a range of questions, checking for understanding, flexible grouping, pair-share). ○ Gradually remove supports, requiring students to demonstrate their mathematical understanding independently. ○ Demonstrate an effective sequence and a progression of learning where the concepts or skills advance and deepen over time. ○ Expect, support and provide guidelines for procedural skill and fluency with core calculations and mathematical procedures (when called for in the standards for the grade) to be performed quickly and accurately.	<i>The lesson/unit regularly assesses whether students are mastering standards-based content and skills:</i> ○ Is designed to elicit direct, observable evidence of the degree to which a student can independently demonstrate the targeted CCSS. ○ Assesses student proficiency using methods that are accessible and unbiased, including the use of grade-level language in student prompts. ○ Includes aligned rubrics, answer keys and scoring guidelines that provide sufficient guidance for interpreting student performance. <u><i>A unit or longer lesson should:</i></u> ○ Use varied modes of curriculum-embedded assessments that may include pre-, formative, summative and self-assessment measures.
Rating: 3 2 1 0	Rating: 3 2 1 0	Rating: 3 2 1 0	Rating: 3 2 1 0

EQuIP Rubric for Lessons & Units: Mathematics

Directions: The Quality Review Rubric provides criteria to determine the quality and alignment of lessons and units to the Common Core State Standards (CCSS) in order to: (1) Identify exemplars/ models for teachers’ use within and across states; (2) provide constructive criteria-based feedback to developers; and (3) review existing instructional materials to determine what revisions are needed.

Step 1 – Review Materials

- Record the grade and title of the lesson/unit on the recording form.
- Scan to see what the lesson/unit contains and how it is organized.
- Read key materials related to instruction, assessment and teacher guidance.
- Study and work the task that serves as the centerpiece for the lesson/unit, analyzing the content and mathematical practices the tasks require.

Step 2 – Apply Criteria in Dimension I: Alignment

- Identify the grade-level CCSS that the lesson/unit targets.
- Closely examine the materials through the “lens” of each criterion.
- Individually check each criterion for which clear and substantial evidence is found.
- Identify and record input on specific improvements that might be made to meet criteria or strengthen alignment.
- Enter your rating 0 – 3 for Dimension I: Alignment.

Note: Dimension I is non-negotiable. In order for the review to continue, a rating of 2 or 3 is required. If the review is discontinued, consider general feedback that might be given to developers/teachers regarding next steps.

Step 3 – Apply Criteria in Dimensions II – IV

- Closely examine the lesson/unit through the “lens” of each criterion.
- Record comments on criteria met, improvements needed and then rate 0 – 3.

When working in a group, individuals may choose to compare ratings after each dimension or delay conversation until each person has rated and recorded their input for the remaining Dimensions II – IV.

Step 4 – Apply an Overall Rating and Provide Summary Comments

- Review ratings for Dimensions I – IV adding/clarifying comments as needed.
- Write summary comments for your overall rating on your recording sheet.
- Total dimension ratings and record overall rating E, E/I, R, N – adjust as necessary.

If working in a group, individuals should record their overall rating prior to conversation.

Step 5 – Compare Overall Ratings and Determine Next Steps

- Note the evidence cited to arrive at final ratings, summary comments and similarities and differences among raters. Recommend next steps for the lesson/unit and provide recommendations for improvement and/or ratings to developers/teachers.

Additional Guidance on Dimension II: Shifts - When considering *Focus* it is important that lessons or units targeting additional and supporting clusters are sufficiently brief – this ensures that students will spend the strong majority of the year on major work of the grade. See the *K-8 Publishers Criteria for the Common Core State Standards in Mathematics*, particularly pages 8-9 for further information on the focus criterion with respect to major work of the grade at www.corestandards.org/assets/Math_Publishers_Criteria_K-8_Summer%202012_FINAL.pdf. With respect to *Coherence* it is important that the learning objectives are linked to CCSS cluster headings (see www.corestandards.org/Math).

Rating Scales

Rating for Dimension I: Alignment is non-negotiable and requires a rating of 2 or 3. If rating is 0 or 1 then the review does not continue.

Rating Scale for Dimensions I, II, III, IV:

- 3: Meets most to all of the criteria in the dimension
- 2: Meets many of the criteria in the dimension
-
- 1: Meets some of the criteria in the dimension
- 0: Does not meet the criteria in the dimension

Descriptors for Dimensions I, II, III, IV:

- 3: **Exemplifies CCSS Quality** - meets the standard described by criteria in the dimension, as explained in criterion-based observations.
- 2: **Approaching CCSS Quality** - meets many criteria but will benefit from revision in others, as suggested in criterion-based observations.
-
- 1: **Developing toward CCSS Quality** - needs significant revision, as suggested in criterion-based observations.
- 0: **Not representing CCSS Quality** - does not address the criteria in the dimension.

Overall Rating for the Lesson/Unit:

- E: Exemplar – Aligned and meets most to all of the criteria in dimensions II, III, IV **(total 11 – 12)**
- E/I: Exemplar *if* Improved – Aligned and needs some improvement in one or more dimensions **(total 8 – 10)**
-
- R: Revision Needed – Aligned partially and needs significant revision in one or more dimensions **(total 3 – 7)**
- N: Not Ready to Review – Not aligned and does not meet criteria **(total 0 – 2)**

Descriptor for Overall Ratings:

- E: **Exemplifies CCSS Quality** – Aligned and exemplifies the quality standard and exemplifies most of the criteria across Dimensions II, III, IV of the rubric.
- E/I: **Approaching CCSS Quality** – Aligned and exemplifies the quality standard in some dimensions but will benefit from some revision in others.
-
- R: **Developing toward CCSS Quality** – Aligned partially and approaches the quality standard in some dimensions and needs significant revision in others.
- N: **Not representing CCSS Quality** – Not aligned and does not address criteria.

Texas Resource Review (TRR)

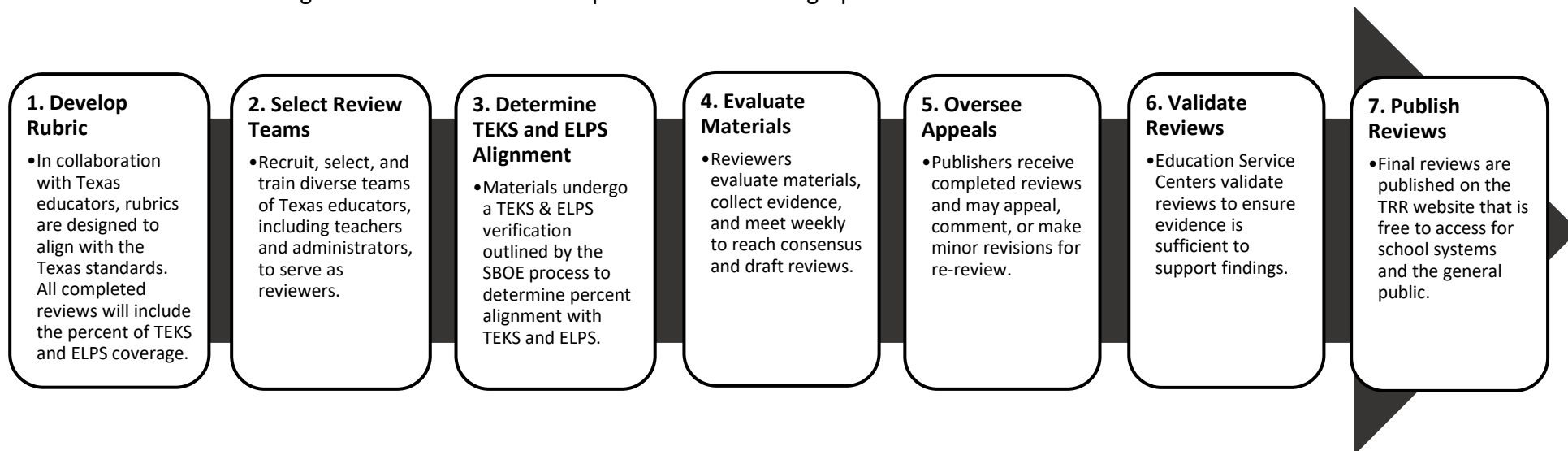
Mathematics Grades K – 8

Top performers in many fields note that the best way to increase productivity is to improve tools. For Texas districts and schools, this means selecting high-quality instructional materials is critical to improving student achievement. This notion is backed by a growing body of research showing that using high-quality instructional materials is one of the most successful and cost-effective ways to improve student outcomes. Districts often find that determining the quality of materials that are the best fit for their students is a time intensive and uncertain process. This leaves many districts asking, “How can we give our classrooms better resources?”

To help districts answer this question, in 2017, the Texas legislature instructed the Texas Education Agency to facilitate an independent analysis of the quality of instructional materials (Texas Education Code § 31.081 and § 31.082). This process, called the Texas Resource Review (TRR), will empower and strengthen local decision-making and make it easier for educators at all levels to attend to the specific, unique needs of their students. Local Education Agencies (LEAs) will have complete autonomy to decide if and how they use the reviews as part of their local review and adoption processes.

Overview of the Process

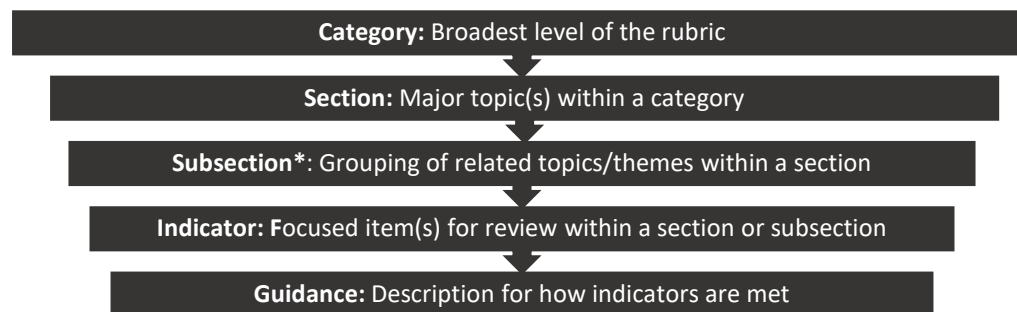
A series of steps will be completed to ensure reviews provide districts with clear, transparent, and user-friendly information about the quality of instructional materials. A high-level overview of the steps is included in the graphic below:



Structure

The rubric is arranged by category, section, subsection, indicator, and guidance. The categories are the broadest level of the rubric and serve as its foundation. Within each category are nested sections, subsections, indicators, and guidance that provide additional details and greater clarity for review items.

*Note: Not all sections contain subsections



Categories

The rubric's categories inform LEAs about essential components of instructional material products.

Category	Description
State Board of Education (SBOE) Review	This category focuses on the SBOE's TEKS and ELPS alignment review of instructional materials. The TRR compliments the SBOE review process and presents its results in the overall quality report. The SBOE review process results in a percentage of TEKS and ELPS coverage and establishes if materials meet or do not meet requirements for state adoption.
Content and Instructional Concepts	This category focus on how well standards are addressed by instructional materials. Sections within this category evaluate guidance for effective teaching and learning specific to the content.
Educator Supports	This category focuses on aspects of instructional materials that directly relate to tools and resources for supporting instruction. Sections within this category focus on the guidance and support students and educators need to ensure all students learn and succeed.
Additional Information	This category provides information on technology, cost, professional learning, and additional language supports as shared by the publisher.

Reviewers will navigate through the rubric based on the categories below and focus on sections within each category to evaluate the quality of instructional materials.

STATE BOARD OF EDUCATION (SBOE) REVIEW PROCESS

1

Texas Essential Knowledge and Skills (TEKS) and English
Language Proficiency Standards (ELPS) Alignment

CONTENT AND INSTRUCTIONAL CONCEPTS

2

Concept Development and Rigor

3

Integration of Process Skills

EDUCATOR SUPPORT

4

Progress
Monitoring

5

Supports for All
Learners

6

Implementation

ADDITIONAL INFORMATION

7.1

Technology

7.2

Cost

7.3

Professional
Learning

7.4

Additional Language
Supports

Scoring Methodology

Quality evaluations are intended to support LEAs in making decisions that best meet their local context. To provide LEAs clear, transparent, and user-friendly information, instructional materials are scored points at the indicator level and then totaled for the section. A percentage score is calculated based on the points awarded for each section. Each score value is supported by evidence collected and the evidence is published in final reports. Sections within the rubric are scored based on the table below.

Mathematics Grades K – 8 Scoring

The following provides an overview of the scoring methodology proposed to support LEAs in their review, adoption, and purchasing decisions.

Category	Section	Number of Indicators	Total Possible Points	Display on Report
SBOE Review Process	1. TEKS and ELPS Alignment	N/A	Meets/Does Not Meet SBOE Criteria	%TEKS % ELPS
Content and Instructional Concepts	2. Concept Development and Rigor	8 indicators	32 points	% of total section points
	3. Integration of Process Skills	7 indicators	28 points	% of total section points
Educator Support	4. Progress Monitoring	3 indicators	6 points	% of total section points
	5. Supports for All Learners	3 indicators	6 points	% of total section points
	6. Implementation	6 indicators	10 points	% of total section points
Additional Information	7. Additional Information: Technology, Cost, Professional Learning, and Additional Language Supports	N/A	No point value	Information Provided

1 Texas Essential Knowledge and Skills and English Language Proficiency Standards Alignment

State review panel members review instructional materials to determine the extent to which the TEKS and ELPS are covered and to identify factual errors. To be eligible for adoption, instructional materials must meet at least 50% of the TEKS and 100% of the required ELPS in the **components intended for student use** and the **components intended for teacher use**, be free from factual error, meet manufacturing specifications, be suitable for the intended course and grade level, and be reviewed by academic experts. The review results in four outputs related to the percentage of TEKS and ELPS present in materials designed for teacher and student use as seen below: Student TEKS, Teacher TEKS, Student ELPS, and Teacher ELPS. **All** materials must be reviewed for TEKS & ELPS Alignment.

Category	Student TEKS	Teacher TEKS	Student ELPS	Teacher ELPS
Does Not Meet SBOE Requirement	<50%	<50%	<100%	<100%
Meets Minimum SBOE Requirement	50-79%	50-79%	100%	100%
TEA Recommended Percentages	80%+	80%+	100%	100%

2 Concept Development and Rigor

Materials provide strategic and integrated instruction in all components of mathematical rigor: conceptual understanding, procedural fluency, and application.

Indicator		Guidance	Scoring
2.1	Materials concentrate on the development of the primary focal area(s) for the grade-level.	- Materials spend the majority of concept development of the primary focal areas for the grade-level as outlined in the TEKS. - Materials strategically and systematically develop students' content knowledge as appropriate for the concept and grade-level as outlined in the TEKS. - Materials provide practice opportunities for students to master the content.	0/2/4
2.2	Materials sequence concepts from concrete to representational to abstract (CRA) as is appropriate for the grade-level and content.	- Materials include a variety of types of concrete models and manipulatives, pictorial representations, and abstract representations, as appropriate for the content and grade level. - Materials support teachers in understanding and appropriately developing students' progression along the CRA continuum.	0/2/4
2.3	Materials support coherence and connections between and within content at the grade-level and across grade levels.	- Materials include supports for students to build their vertical content knowledge by accessing prior knowledge and understanding of concept progression. - Materials include tasks and problems that intentionally connect two or more concepts as appropriate for the grade-level. - Materials provide opportunities for students to explore relationships and patterns within and across concepts. - Materials support teachers in understanding the horizontal and vertical alignment guiding the development of concepts.	0/2/4

2.4	Materials are built around quality tasks that address content at the appropriate level of rigor and complexity.	• Tasks are designed to engage students in the appropriate level of rigor (conceptual understanding, procedural fluency, or application) as identified in the TEKS and as appropriate for the development of the content and skill. • Materials clearly outline for the teacher the mathematical concepts and goals behind each task. • Materials integrate contextualized problems throughout, providing students the opportunity to apply math knowledge and skills to new and varied situations. • Materials provide teacher guidance on anticipating student responses and strategies. • Materials provide teacher guidance on preparing for and facilitating strong student discourse grounded in the quality tasks and concepts.	0/2/4
2.5	Materials include cohesive, year-long plan for students to develop fluency in an integrated way.	• Materials include teacher guidance and support for conducting fluency practice as appropriate for the concept development and grade. • Materials include a year-long plan for building fluency as appropriate for the concept development and grade. • Materials integrate fluency at appropriate times and with purpose as students progress in conceptual understanding. • Materials include scaffolds and supports for teachers to differentiate fluency development for all learners.	0/2/4
2.6	Materials support students in the development and use of mathematical language .	• Materials include embedded opportunities to develop and strengthen mathematical vocabulary. • Materials include guidance for teachers on how to scaffold and support students' development and use of academic mathematical vocabulary in context.	0/2/4
2.7	Materials provide opportunities for students to apply mathematical knowledge and skills to solve problems in new and varied contexts, including problems arising in everyday life, society, and the workplace.	• Materials include opportunities for students to integrate knowledge and skills together to successfully problem solve and use mathematics efficiently in real-world problems. • Materials provide students opportunities to analyze data through real-world contexts.	0/2/4

2.8	Materials are supported by research on how students develop mathematical understandings.	• Materials include cited research throughout the curriculum that supports the design of teacher and student resources. • Materials provide research-based guidance for instruction that enriches educator understanding of mathematical concepts and the validity of the recommended approach. • Cited research is current, academic, relevant to skill development in mathematics, and applicable to Texas-specific context and demographics. • A bibliography is present.	0/2/4
Total Points Possible:			32

3 Integration of Process Skills

Materials include instruction, practice and integration of mathematical process skills: problem solving, appropriate selection of tools and techniques, effective communication, use and analysis of mathematical relationships to communicate, and justification and argumentation using mathematical language.

3.A Problem Solving, Tools, and Techniques

Indicator		Guidance	Scoring
3.A.1	Materials develop student ability to use and apply a problem-solving model .	- Materials guide students in developing and practicing the use of a problem-solving model that is transferrable across problem types and grounded in the TEKS. - Materials prompt students to apply a transferrable problem-solving model. - Materials provide guidance to prompt students to reflect on their approach to problem solving. - Materials provide guidance for teachers to support student reflection of approach to problem solving.	0/2/4
3.A.2	Materials provide opportunities for students to select appropriate tools for the task, concept development, and grade.	- Materials provide opportunities for students to select and use real objects, manipulatives, representations, and algorithms as appropriate for the stage of concept development, grade, and task. - Materials provide opportunities for students to select and use technology (e.g., calculator, graphing program, virtual tools) as appropriate for the concept development and grade. - Materials provide teacher guidance on tools that are appropriate and efficient for the task.	0/2/4
3.A.3	Materials provide opportunities for students to select appropriate strategies for the work, concept development, and grade.	- Materials prompt students to select a technique (mental math, estimation, number sense, generalization, or abstraction) as appropriate for the grade-level and the given task. - Materials support teachers in understanding the appropriate strategies that could be applied and how to guide students to more efficient strategies. - Materials provide opportunities for students to solve problems using multiple appropriate strategies.	0/2/4

3.A.4	Materials develop students' self-efficacy and mathematical identity by providing opportunities to share strategies and approach to tasks.	- Materials support students to see themselves as mathematical thinkers who can learn from solving problems, make sense of mathematics, and productively struggle. - Materials support students in understanding that there can be multiple ways to solve problems and complete tasks. - Materials support and guide teachers in facilitating the sharing of students' approaches to problem solving.	0/2/4
3.B Communication			
Indicator		Guidance	Scoring
3.B.1	Materials prompt students to effectively communicate mathematical ideas, reasoning, and their implications using multiple representations.	- Materials provide students opportunity to communicate mathematical ideas and solve problems using multiple representations, as appropriate for the task. - Materials guide teachers in prompting students to communicate mathematical ideas and reasoning in multiple representations, including writing and the use of mathematical vocabulary, as appropriate for the task.	0/2/4
3.B.2	Materials provide opportunities to discuss mathematical ideas to develop and strengthen content knowledge and skills.	- Materials provide opportunities for students to engage in mathematical discourse in a variety of settings (e.g., whole group, small group, peer-to-peer). - Materials integrate discussion throughout to support students' development of content knowledge and skills as appropriate for the concept and grade-level. - Materials guide teachers in structuring and facilitating discussions as appropriate for the concept and grade-level.	0/2/4
3.B.3	Materials provide opportunities for students to justify mathematical ideas using multiple representations and precise mathematical language.	- Materials provide opportunities for students to construct and present arguments that justify mathematical ideas using multiple representations. - Materials assist teachers in facilitating students to construct arguments using grade-level appropriate mathematical ideas.	0/2/4
Total Points Possible:			28

4 Progress Monitoring

Materials provide frequent, strategic opportunities to monitor and respond to student progress toward development of appropriate grade level and content skill development.

Indicator		Guidance	Scoring
4.1	Materials include developmentally appropriate diagnostic tools (e.g., formative and summative progress monitoring) and guidance for teachers and students to monitor progress.	- Materials include a variety of diagnostic tools that are developmentally appropriate (e.g., observational, anecdotal, formal). - Materials provide guidance to ensure consistent and accurate administration of diagnostic tools. - Materials include tools for students to track their own progress and growth. - Materials include diagnostic tools to measure all content and process skills for the grade level, as outlined in the TEKS and Mathematical Process Standards.	0/1/2
4.2	Materials include guidance for teachers and administrators to analyze and respond to data from diagnostic tools.	- Materials support teachers with guidance and direction to respond to individual students' needs in all areas of mathematics, based on measures of student progress appropriate to the developmental level. - Diagnostic tools yield meaningful information for teachers to use when planning instruction and differentiation. - Materials provide a variety of resources and teacher guidance on how to leverage different activities to respond to student data. - Materials provide guidance for administrators to support teachers in analyzing and responding to data.	0/1/2
4.3	Materials include frequent, integrated formative assessment opportunities .	- Materials include routine and systematic progress monitoring opportunities that accurately measure and track student progress. - Frequency of progress monitoring is appropriate for the age and content skill.	0/1/2
Total Points Possible:			6

5 Supports for All Learners

Materials provide guidance and support that help teachers meet the diverse learning needs of all students.

Indicator		Guidance	Scoring
5.1	Materials include guidance, scaffolds, supports, and extensions that maximize student learning potential.	- Materials provide recommended targeted instruction and activities for students who struggle to master content. - Materials provide recommended targeted instruction and activities for students who have mastered content. - Materials provide additional enrichment activities for all levels of learners.	0/1/2
5.2	Materials provide a variety of instructional methods that appeal to a variety of learning interests and needs.	- Materials include a variety of instructional approaches to engage students in mastery of the content. - Materials support developmentally appropriate instructional strategies. - Materials support flexible grouping (e.g., whole, small, individual). - Materials support multiple types of practices (e.g., guided, independent, collaborative) and provide guidance and structures to achieve effective implementation.	0/1/2
5.3	Materials include supports for English Learners (EL) to meet grade-level learning expectations.	- Materials must include accommodations for linguistics (communicated, sequenced, and scaffolded) commensurate with various levels of English language proficiency. - Materials provide scaffolds for English Learners. - Materials encourage strategic use of students' first language as a means to develop linguistic, affective, cognitive, and academic skills in English (e.g., to enhance vocabulary development).	0/1/2
Total Points Possible:			6

6 Implementation

Materials provide support for implementation including clear and easy-to-follow guidance and support for teachers.

Indicator		Guidance	Scoring
6.1	Materials include year-long plans with practice and review opportunities that support instruction.	- Materials include a cohesive, year-long plan to build students' mathematical concept development and consider how to vertically align instruction that builds year to year. - Materials provides review and practice of mathematical knowledge and skills throughout the span of the curriculum.	0/1/2
6.2	Materials include implementation support for teachers and administrators.	- Materials are accompanied by a TEKS-aligned scope and sequence outlining the essential knowledge and skills that are taught in the program, the order in which they are presented, and how knowledge and skills build and connect across grade levels. - Materials include supports to help teachers implement the materials as intended. - Materials include resources and guidance to help administrators support teachers in implementing the materials as intended. - Materials include a school years' worth of math instruction, including realistic pacing guidance and routines.	0/1/2
6.3	Materials provide implementation guidance to meet variability in programmatic design and scheduling considerations.	- Materials provide guidance for strategic implementation without disrupting the sequence of content that must be taught in a specific order following a developmental progression. - Materials are designed in a way that allow LEAs the ability to incorporate the curriculum into district, campus, and teacher programmatic design and scheduling considerations. - Materials support development of strong relationships between teachers and families. - Materials specify activities for use at home to support students' learning and development.	0/1/2

6.4	Materials provide guidance on fostering connections between home and school .	- Materials support development of strong relationships between teachers and families. - Materials specify activities for use at home to support students' learning and development.	0/1/2
6.5	The visual design of student and teacher materials (whether in print or digital) is neither distracting nor chaotic.	- Materials include appropriate use of white space and design that supports and does not distract from student learning. - Pictures and graphics are supportive of student learning and engagement without being visually distracting.	0/1/2
6.6	If present, technology or online components included are appropriate for grade level students and provide support for learning.	- Technology, if present, aligns to the curriculum's scope and approach to mathematics skill progression. - Technology, if present, supports and enhances student learning as appropriate, as opposed to distracting from it, and includes appropriate teacher guidance.	NOT SCORED
Total Points Possible:			10

7 Additional Information

The following information will appear on the Texas Resource Review website, providing additional information about the set of materials being reviewed.

Indicator		Guidance	Scoring
7.1	Technology components are identified per the information requirement checklist.	Technology checklist is completed.	NOT SCORED
7.2	Cost worksheet completed.	Cost worksheet is completed.	NOT SCORED
7.3	Professional learning opportunities meet criteria for implementation.	Professional learning indicators built by TEA.	NOT SCORED
7.4	Additional language supports worksheet completed.	Additional language worksheet is completed.	NOT SCORED
Total Points Possible:			N/A

Note: TEA is currently developing a Glossary of Terms and Supporting Research List for each newly developed rubric. As part of the development process, TEA will work in coordination with relevant educator associations and councils to gather input and feedback. Final versions are scheduled to be released in Spring 2020.

Massachusetts CURATE Project: *Curriculum Ratings by Teachers*

Mathematics Rubric, K-12

Purpose of the Rubric

The CURATE rubric is designed for use by CURATE panelists to evaluate core **curricular materials** for English Language Arts/Literacy; Mathematics; Science and Technology/Engineering; and Digital Literacy and Computer Science and may also be used by educators in other contexts.



Core curricular materials are comprehensive resources designed for use with *all* students to access grade level content and standards in a given class over the course of a year or semester.

Through the use of the rubric, CURATE aims to elevate curricular materials that are high quality. A further distinction to clarify is connected to skillful implementation and aligned professional learning. The CURATE rubric evaluates for the content of the materials but **does not and is not intended** to measure implementation or professional learning. The Massachusetts Department of Elementary and Secondary Education (DESE) believes **high quality instructional materials (HQIM)** are aligned to the Massachusetts content and practice standards, empower culturally and linguistically sustaining practices, and exhibit a coherent sequence of target skills, instructional practices, and understandings. These materials are accessible for all students, including students with disabilities, students working above and below grade level, English learners (ELs), and students of color. HQIM should strongly support teachers in their everyday work to be inclusive and culturally and linguistically sustaining. Curricular programs that receive an overall rating of **“meets expectations”** or **“partially meets expectations”** via CURATE are considered HQIM. Although materials may be rated “high quality” this does not mean they are perfect. Materials rely on the skillful implementation of teachers who need to consider their local contexts and student needs. Schools or districts should also consider their local priorities and their student and teacher needs when analyzing CURATE reports since the challenges reported may impact districts differently.

Guidelines for Review

- Review and document all evidence before deciding on ratings.
- Consider quantity as well as quality of evidence for each indicator.
- Consider evidence of high quality as well as evidence of low quality.
- Do not feel compelled to weigh each indicator and criterion equally.
- Do not consider provided examples to be exhaustive or restrictive.
- If evidence is lacking for an indicator, flag it for further data collection.

Sources of Evidence

- The product itself: unit and lesson plans, teacher guides, student-facing resources, associated software, and other components
- Other credible and comprehensive reviews of materials, such as those by [EdReports](#),
- Perceptual data, such as survey responses and focus group findings, from educators with experience using the product in schools
- Information—such as product specifications and videos of teachers using the product—provided by its developers or publishers
- Research findings: see criterion 5 below for guidance on how to evaluate and interpret research on a product’s efficacy

Definitions of Ratings

- **3: Meets Expectations** – Most or all evidence indicates high quality; little to none indicates low quality. Materials may not be perfect, but Massachusetts teachers and students would be well served and strongly supported by them.
- **2: Partially Meets Expectations** – Some evidence indicates high quality, while some indicates low quality. Teachers in Massachusetts would benefit from having these materials but need to supplement or adapt them substantively to serve their students well.
- **1: Does Not Meet Expectations** – Little to no evidence indicates high quality; most or all evidence indicates low quality. Materials would not substantively help Massachusetts teachers and students meet the state’s expectations for teaching and learning.
- **?: Insufficient Evidence** – More evidence is needed before a rating can be justified. If you are unsure about a rating because you lack relevant information, be sure to choose this option instead of “defaulting” to a rating of Partially Meets Expectations.

Rubric Structure

Domains	Standards Alignment		Classroom Application		
Criteria	Content Standards & Organization	Grade-Appropriate Practices	Accessibility for Students	Usability for Teachers	Impact on Learning

Rubric

Domain: Standards Alignment			
Criterion	Indicator	Notes and Tips	Further Reading
1. Content Standards and Organization <i>Note:</i> This rubric was developed for CURATE, which evaluates materials that have previously been reviewed for alignment to college- and career-ready standards. If using this rubric to review materials not already screened for some degree of standards alignment, consider adding or expanding indicators to ensure a comprehensive evaluation.	a. Content progresses coherently from unit to unit and grade to grade in alignment with Massachusetts standards.	● Focus on a comprehensive review of alignment to the MA standards. Note that EdReports does not review for alignment to MA specific standards. ● Review for coherence of content and language expectations from one grade to another and from unit to unit. ● For Grades 9–12, be aware that some products are developed primarily for the Traditional or Integrated course pathway, then reorganized to suit the other pathway in ways that do not always preserve coherence.	● Standards Navigator: standards, related resources, and maps of connections between standards ● Aligning Curriculum to Massachusetts Standards and Math Revision Highlights (differences between Massachusetts and Common Core State Standards) ● Curriculum framework: progression of PK–8 domains (p. 20), distribution of Conceptual Category standards across high school model courses (Appendix III, pp. 180–190) ● Quick reference guide: Making Decisions about Secondary Course Sequences
	b. Materials build conceptual understanding, procedural fluency, and real-world application in balanced and effective ways.	To meet expectations, materials must: ● Balance conceptual understanding, procedural fluency, and real-world application across lessons and units. ● Intentionally sequence conceptual understanding using visual models and/or concrete examples at all grade levels. ● Develop <i>procedural fluency</i> by focusing on the act of constructing quantitative relationships rather than memorizing. Procedural fluency directly	● Neighborhood Health Ratios (DESE STEM Ambassadors, 2019) ● The Culturally Responsive-Sustaining STEAM Curriculum Scorecard (New York: Metropolitan Center for Research on Equity and the Transformation of Schools, NYU, 2021)

		connects conceptual models and real-world applications. Engage with <i>real-world applications</i> that • Approximate scenarios students may encounter in their everyday lives or future careers, or help them to understand their lives in age-appropriate ways, • Include real-world data that reveal systemic inequities, allow students to examine their perspectives and others', and help them advance their thinking and actions about equity, power, and anti-racism. • Actively draw upon students' diverse backgrounds, including students generating their own examples to help them deepen learning and make real-life connections. All students should engage with meaningful, culturally, linguistically, and historically relevant, real-world problems in school every day, and math curriculum should contribute substantively to such engagement.	
2. Grade-Appropriate Practices	a. Materials encourage students to use multiple representations when solving problems.	• <i>Multiple representations</i> might take visual, physical, symbolic, contextual, or linguistically inclusive verbal forms and include tables, graphs, drawings, diagrams, or models. • To meet expectations, materials must provide opportunities for students to intentionally move among	

		multiple representations and discover and explain how they connect to one another. ● This indicator relates most directly to SMPs 1, 2, and 4 but connects to other practices as well.	Curriculum framework, Appendix II: standards for mathematical practice (SMPs) in ○ PK–5 (pp. 171–173) ○ 6–8 (pp. 174–176) ○ 9–12 (pp. 177–179) ● Principles for the Design of Mathematics Curricula: Promoting Language and Content Development (Stanford University) ● Math Guidelines: Area of Focus I: Interdependence of Mathematical Content, Practices, and Language (The English Learner Success Forum, ELSF, p.10) ● Quick reference guides: SMPs in ○ PK–2 ○ 3–5 ○ 6–8 ○ 9–12 ● ELA/literacy curriculum framework: ○ PK–5 standards for ELA and literacy in the content areas (pp. 20–73) ○ Guidance on literacy and mathematics in PK–5 (pp. 76–78) ○ 6–12 standards for literacy in the content areas (pp. 130–150) ○ Guidance on literacy in the content areas in 6–12 (pp. 151–153)
	b. Materials encourage students to justify solutions to problems using clear oral and written communication.	● This indicator relates most directly to SMPs 3 and 6 but connects to other practices as well. ○ Do materials incorporate a comprehensive approach to fostering language proficiency in the four domains (speaking, reading, listening, and writing) among ELs during student academic discourse?	
	c. Materials encourage students to solve problems through strategic selection and use of a range of appropriate tools.	● To meet expectations, materials must provide opportunities for students to choose the tools they use, not only to use tools chosen for them. ● This indicator relates most directly to SMP 5 but connects to other practices as well.	
	d. Materials encourage students to explain their thinking to others and evaluate others' thinking.	● Materials provide guidance to students on how to engage in Math discourse, how to offer and respond to critical feedback, and how to resolve disagreements about the content. ● Materials provide resources to affirm various cultural, historic, and linguistic representations of math content knowledge. For example, this could include evaluating the reasoning of characters in fictional scenarios; indicator 2e focuses on communication with classmates.	

		This indicator relates most directly to SMP 3 but connects to other practices as well.	
	e. Materials provide opportunities for students to participate in regular conversation and collaboration with peers focused on lesson content.	- In 2017, Massachusetts adopted speaking and listening standards applicable to math among other subjects at all grade levels. <i>Comprehension and collaboration</i> is the first cluster. - Do materials adeptly facilitate the cultivation of students' capacity to justify solutions to problems through proficient oral and written communication in diverse linguistic contexts, including during academic discourse?	- ELA/literacy curriculum framework: PK–12 anchor standards for speaking and listening (pp. 24, 134) Math Guidelines: Area of Focus III; Mathematical Rigor Through Language (The English Learner Success Forum, ELSF, p.12)

Domain: Classroom Application			
Criterion	Indicator	Notes and Tips	Further Reading
3. Accessibility for Students <i>Note:</i> While no one set of materials can serve all students' needs, they should strongly support teachers tasked with doing so. Standard II of the MA model teacher evaluation rubric	a. Materials provide for varied means of accessing content, helping teachers meet the diverse needs of students with disabilities and those working above or below grade level.	- Consider whether materials provide differentiated strategies and/or activities to meet the diverse needs of students working below proficiency, English Learners (ELs), and those of advanced learners. - Focus here on access to grade level content, not intervention or remediation. - Consider whether materials provide multiple means of representation and opportunities for collaborative learning (e.g., partner work). - Consider intentional and varied points of access as an important strategy for ELs.	- Guidebook for Inclusive Practice, Example Artifact List: illustrates ways in which instructional materials can support <i>inclusive practice</i>, which encompasses Universal Design for Learning (the focus of these two indicators), Positive Behavioral Interventions and Supports, and Social and Emotional Learning Universal Design for Learning Guidelines (CAST, 2018) Math Guidelines: Area of Focus II; Scaffolding and Supports for

sets expectations for teaching all students.	b. Materials provide for varied means of demonstrating learning, helping teachers meet the diverse needs of students with disabilities and those working above or below grade level.	- Consider whether materials provide students the support needed to succeed on tasks and activities, helping meet the diverse needs of students with disabilities, English Learners, and those below and above grade level. - Focus here on demonstration of grade level learning, not intervention or remediation. - Consider whether materials provide multiple means of action and expression and opportunities for students to make choices. - Materials should include multiple modes of assessment to demonstrate learning. - Consider intentional means of demonstrating learning as an important strategy for ELs.	Simultaneous Development (ELSF, p.11)
	c. Materials help teachers ensure that students at various levels of English proficiency have access to grade level content, cognitively demanding tasks, and opportunities to develop academic language in English.	- Materials should offer supports specific to ELs (e.g., references to cognates, as-needed scaffolding, and entry points to amplify—rather than simplify—complex language) as well as supports that benefit ELs among other learners (e.g., repeated exposure to academic vocabulary, and opportunities to develop academic language in English). - Materials should support teachers to develop ELs' content knowledge and English proficiency simultaneously by using the WIDA standards framework to identify the language expectations, forms, and features students need to communicate information, ideas and concepts necessary for academic success in the science content.	- DESE's EL Blueprint for Success Guidelines for Improving Math Materials for ELs (English Learner Success Forum) The 2020 Edition (WIDA Consortium) Examples of relevant resources (WIDA Consortium): - Sensory supports (e.g., real-life objects, manipulatives, videos) - Graphic supports (e.g., charts, tables, graphs, timelines) - Interactive supports (e.g., pair and group work, software)

		- Materials should support teachers to differentiate language demands for ELs while maintaining cognitive demand and access to grade level content. - Supports could be language specific, language family generalized, and/or inclusive of home languages.	- On the importance of language support for ELs in math: ELLs Count on Language Support in Math (Varlas, 2018) Math Instruction for English Language Learners (Robertson)
	d. Materials include questions and tasks that affirm and value diverse identities, backgrounds, and perspectives.	Questions to consider: - Do the materials elevate diverse backgrounds, perspectives, languages, and identities to deepen learning? - Do the materials challenge existing narratives about historically marginalized and historically centered or normed cultures including challenges rooted in systemic oppression? - Do the materials promote recognition of the validity and worth of all cultures and languages? - Do the materials provide factual, historical attributions for the development of concepts and applications related to the content? - Consider whether the questions and tasks support students to: - Actively draw upon students' diverse backgrounds - Make real-life connections - Examine their own and others' perspectives	Assessing Bias in Standards and Curricular Materials (Coomer, Skelton, Kyser, Thorius, & Warren, 2017) Education Week article and linked resources The Culturally Responsive-Sustaining STEAM Curriculum Scorecard (New York: Metropolitan Center for Research on Equity and the Transformation of Schools, NYU, 2021) Culturally Responsive Curriculum (Hanover Research, 2020) Mathematics for Whom: Reframing and Humanizing Mathematics Culturally and Linguistically Sustaining Practices: MA DESE definition of cultural responsiveness and tools for professional development Math Guidelines: Area of Focus IV: Leveraging Students' Assets (The

		○ Help advance student thinking and actions about identity, equity, power, and oppression	English Learner Success Forum, ELSF, p.13)
4. Usability for Teachers <i>Note:</i> Materials should strongly support teachers in their everyday work. Standard I of the MA model teacher evaluation rubric defines expectations for teachers related to curriculum, planning, and assessment.	a. Lessons and tasks advance student learning with clear purpose.	Consider whether: ● The intended purpose of each lesson and task is clear, and content and language learning are interdependent. ● Lessons and tasks serve their intended purposes effectively.	● Principles for the Design of Mathematics Curricula: Promoting Language and Content Development (Stanford University) [DESE is collecting samples of openly available curricular materials that exemplify various aspects of usability. To nominate a resource to be featured here, contact DESE-CURATE@mass.gov.] ● Math Guidelines: Area of Focus V: Assessment of Mathematical Content, Practice, and Language (ELSF, p.14)
	b. Materials support teachers with suggested classroom routines and structures (e.g., grouping strategies).	● <i>Routines</i> might involve math vocabulary, fact fluency, mental math, number talks, or math manipulatives. ○ <i>Routines</i> should encourage equitable and inclusive student participation that support the simultaneous development of language and content learning. ● <i>Structures</i> (e.g., pair work, math stations, talk protocols, speaking prompts, listening/note taking tools, group work roles) might be designed to broaden participation and cultivate collaboration among students, including English learners. ○ Structures should be designed to broaden participation and cultivate collaboration among students, including English learners. ● Materials provide resources to support productive student discourse. ● Materials provide resources to actively avoid potential bias in grouping strategies.	

	c. Pacing is reasonable and flexible; the curriculum can be implemented effectively within a typical school year.	Consider whether: • Time estimates for lessons and units are accurate. • Required number of minutes per day and days per year are feasible. • Flexible options exist for a variety of school schedules and unforeseen circumstances. • Guidance is provided to make educated decisions for what resources and aspects of the lesson to be prioritized on a daily basis.	
	d. Materials include informal and formal assessments that help teachers measure learning and adjust instruction.	Consider whether: • Assessments provide multiple opportunities to identify students' misconceptions about taught skills or themes within and across units, and surface gaps in skills knowledge, including language learning. • Materials guide teachers toward next steps based on assessment data (e.g., reteaching, reassessing, continued practice).	
	e. Materials include rubrics, exemplars, or other resources to help teachers set clear and high expectations for students.	In addition to rubrics and exemplars, relevant resources might include: • Checklists for students to use in peer or self-assessments. • Annotated student work at various levels of achievement, including non-exemplars, or student work at different levels of English development • Guidance for the teacher to avoid bias in setting expectations for students.	

	f. Materials include guidance and resources designed specifically to build teachers' knowledge.	Relevant supports might bolster aspects of <i>content knowledge</i> (e.g., math vocabulary, fundamental math theory), <i>pedagogical content knowledge</i> (e.g., development of number sense or algebraic reasoning), and <i>inclusive and culturally and linguistically sustaining practice</i>. - Do the materials provide a range of supports for teachers that include both topic understanding, language development, and specific lesson/standards guidance? - Formats might vary: consider callout boxes and annotations in lessons, videos of classroom instruction, implementation guides, and more. - Do the materials support teachers to recognize their own pedagogical biases? - Do the materials provide context for teachers to develop their sociocultural consciousness by contextualizing historical frames and providing various cultural developments for similar concepts? - Do the materials provide teachers with guidance on how to approach, enhance, and customize lessons to be inclusive and responsive to the diverse identities of students, inclusive of linguistic, racial, ethnic, and gender diversity?	- Subject Matter Knowledge (SMK) Guidelines set expectations for Massachusetts educators' content knowledge. Information about SMKs is available on DESE's educator preparation page. Designing Educative Curriculum Materials to Promote Teacher Learning (Davis & Krajcik, 2005) Culturally and Linguistically Sustaining Practices: MA DESE definition of cultural responsiveness and tools for professional development Culturally Responsive Curriculum (Hanover Research, 2020)
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5. Impact on Learning <i>Note:</i> For CURATE reviews, DESE’s research office determines ratings for this indicator and criterion.	a. Research demonstrates that the materials have a positive impact on student learning.	● Research that meets expectations: ○ Falls into evidence tiers 1, 2, or 3 as defined by ESSA ○ Concerns the specific product under review, not just pedagogical strategies the product incorporates ○ Is conducted by an independent, disinterested party	● DESE’s “How Do We Know?” Initiative helps educators gather, assess, and use evidence to make informed decisions about programs and practices.
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Summary

Points to Consider	Summary (Big Ideas)	Summary (Ready)	Summary (Algebra 1)	Summary (Geometry)	Summary (Algebra 2)
☐ Standard Alignment	- Clearly labeled standards - Large focus questions to match essentials - Standards mentioned within standards	- Alignment to Standards - Guided Notes - Scaffolding - Vocabulary	- Standards aligned to AZ - sequences makes sense to current testing calendar	Clearly aligned to state standards, good progression	Standard alignment
☐ Learning Objectives	- Learning targets and success criteria in kid-friendly language - Spiral review - Standards are big pictures instead of daily focus	Lesson objectives are stated in student-friendly language, including the "why"	Clear and direct learning objectives	Clearly listed learning objectives	- Student-friendly learning objectives - Clear formatting/bulleted objectives to make planning easier - Learning objectives identify the "why"
☐ Conceptual	- Big picture lessons instead of daily stand alone - Pictures, diagrams, hands-on activities, manipulatives - Online fluency practice	- Provides good modeling/thinking questions - Not too advanced for students	Conceptual ideas that tie into standards		- Conceptual examples that make math connections to real-life - Conceptual problems are accessible to all learners

	• Games • Error analysis/common misconceptions				
☐ Procedural/Fluency	• Homework support for students (QR code or video) • Multiple practice problems with room to compute • Spiral review • Engaging and relevant performance tasks • Project based learning • scaffolding , building on prior knowledge	• Procedural fluency matches lesson objective • Procedures are broken down into “steps” so students can build up skill • Procedural fluency includes many practice problems	• Homework procedural/fluency support at home with QR codes or videos	• More problems in procedural/fluency practice	• Procedural/fluency builds upon previous lessons • Offers extra resources for students needing more repetition on fluency
☐ Application	• Meaningful application • Project-based learning, performance tasks, real-life connections • Real, relatable story problems with varied levels of questioning	• Real-life connections, hands-on activities that are relatable to students and match learning objective	•	• Lesson have clear application problems with modelling and discussion	• Applications that encourage discussion and engagement, authentic not forced, technology enabled

	• Spiral review with application				
☐ Gifted, SpEd, EL	• Technology, games, challenges, performance tasks, dig deeper • Supports for ELL, SpEd, and Gifted learners • Scaffolding for all levels	• Need more “entry-level” practice and resources for scaffolded learning	•	• Applications available for honors and gifted students, scaffolding for SpEd and ELL	• Connects to real-life applications so gifted, SpEd, EL can relate • Resources that support vocabulary • Not too word-heavy on instruction
☐ Differentiation	• Station activities • Multiple checks for understanding provided • Enrichment activities that go beyond word problems • MTSS support • Support for parents • Reteach resources	• Error analysis activities are great • Need more scaffolding for math readiness		• Additional resources for extended/varied practice	• Thinking tasks for all levels • Scaffolding for all learners

Big Ideas

Points to Consider	Positives - What works well here?	Changes - What could be improved?	Summary
Standard Alignment	• The connection between multiplication and division, use of different models • Is aligned • Material is aligned to standards listed at beginning of chapter • All standards are addressed/taught • Standard is attached to a lesson in chapter • Good standards are aligned to AZ standards • n/a - use "learning targets" in plain language, "success criteria"	• Standards labeled, not just learning target, large focus question to match essentials. We have to supplement money and clocks and more. • Maybe a more direct AZ connection, missing pretexts • Would like them labeled on days and assessments • An insert showing book standards aligned to AZ standards • No mention of standard within the lessons	• Clearly labeled standards • Large focus questions to match essentials • Standards mentioned within standards
Learning Objectives	• They are at the start of each chapter • In kid friendly language • Something the program does well - very student friendly has success criteria • Strong learning objectives, success criteria, student	• Spiral Review, structured notebooks. • Maybe have students do a reflection of some sort related to the objectives • It's the strategy for the day, not the standard being worked toward	• Learning targets and success criteria in kid-friendly language • Spiral review • Standards are big pictures instead of daily focus

	friendly • Stated at beginning of each lesson in student friendly language • Well done, broken down	• self-reflection	
 Conceptual	• Pictures, diagrams, suggested hands-on manipulatives • Good progression multiple approaches, has parent support video • Builds in a way that makes sense, starts with previously learned strategy • Conceptual involved a lot of reading • Generally shows in two different ways • Materials and resources	• So many strategies, weighed equally. Online fluency. Larger lessons for whole week rather than daily. • Add some real-life conceptual understanding, hands-on projects to develop conceptual understanding • More games for conceptual • Require students to practice it prior to moving into fluency questions • What about common misconceptions?	• Big picture lessons instead of daily stand alone • Pictures, diagrams, hands-on activities, manipulatives • Online fluency practice • Games • Error analysis/common misconceptions
 Procedural/ Fluency	• Intro videos, homework QR code, good amount of practice • Generally about 15 questions, several are too easy • Prior skills	• Manipulatable slide deck to keep year to year rather than PDF • Need a daily/weekly warm-up for spiral introduction/review • Need more space • preview/spiral review included in curriculum is missing	• Homework support for students (QR code or video) • Multiple practice problems with room to compute • Spiral review • Engaging and relevant performance tasks • Project based learning

		• Not enough for teacher to use and students to get independent practice, more problems, more whole group practice, not enough fact practice • Only test strategies taught, no standards based assessments possible • Not enough practice, need more problems to do with the teacher and problems for independent practice • Have more spiral review to pull from for kids needing more and to review later in the year	• scaffolding , building on prior knowledge
Application	• Real, relatable story problem, levels of questioning • Performance tasks are good and engaging, like STEAM • A few problems • Love the performance task, want more options and more each chapter • Performance tasks are good, but more needed, cross curricular connections • Only a couple, generally good • Cross curricular connections	• Not enough room to write, students work in groups, center activities • Need a daily/weekly warm-up for spiral introduction/review • Need more project based learning, performance tasks and real-life connections, need more differentiated enrichment tasks - more engaging • Need more space to draw out strategies • Only word problems not tied	• Meaningful application • Project-based learning, performance tasks, real-life connections • Real, relatable story problems with varied levels of questioning • Spiral review with application

		to future student lives • Needs more opportunities for meaningful application, project-based learning • The word problems are frustrating • Need more application practice and at different levels to build up to higher level, spiral review with application • Needs more one per chapter is not enough	
☐ Gifted, SpEd, EL	• Technology, games, challenges, performance tasks, dig deeper • Have a section for teachers for ELL and how to extend • Notes on slide for discussion • Supports are mentioned but not detailed • There are suggestions for ELL. • Remediation resources generally good and showed how to solve on the pages • A lot of ELL supports, but is it very helpful?	• Spanish translation • Nothing for gifted • Not enough useful resources - should be separated books we can use to support, need better resources to support all learners • Not enough resources • More problems • Enrichment was weak, not always challenging, need more levelling with “fluency” questions and application questions • One activity per chapter	• Technology, games, challenges, performance tasks, dig deeper • Supports for ELL, SpEd, and Gifted learners • Scaffolding for all levels

Differentiation	• Technology, testing online • Surface level, deep level, transfer level, 1 page of center ideas per chapter, ideas for different assessments • Reteach, extra practice, enrichment, center activities • Lauries notes - think and grow	• Ongoing, multiple checks for understanding (i.e. exit tickets, spiraling), ability to edit tests • Specific ideas and center stations, • Better enrichment than word problems • Ready made centers, wish the assessment was more about standard and not the strategies in the curriculum • No talk of tier, MTSS support • More tie in to other curriculum areas • There are not clear MTSS supports, not enough opportunities for differentiation • Not strong needs more for variety of levels and learning styles • Need parent support	• Station activities • Multiple checks for understanding provided • Enrichment activities that go beyond word problems • MTSS support • Support for parents • Reteach resources
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Ready Classroom

Points to Consider	Positives - What works well here?	Changes - What could be improved?	Summary
☐ Standard Alignment	• Vocabulary • Aligned to standards	• Guided notes and scaffolding	• Alignment to Standards • Guided Notes • Scaffolding • Vocabulary
☐ Learning Objectives	• Has learning objectives in the Teachers Edition • It's all there, includes how to develop academic language	• Could include the "why"	• Lesson objectives are stated in student-friendly language, including the "why"
☐ Conceptual	• "Why" questions are good • Provides "picture it/model it" discussion and activities	• Too high level for our students • Too high level/too much inquiry	• Provides good modeling/thinking questions • Not too advanced for students
☐ Procedural/Fluency	• Like fluency skills practice, need more problems still • Comes with practice book	• Doesn't match the lesson • Break down procedures more students need to learn how to build up on skill	• Procedural fluency matches lesson objective • Procedures are broken down into "steps" so students can build up skill • Procedural fluency includes many practice problems

 Application	• Real life connection, hands on activities	• Doesn't match the lesson • Scale factor problems are WAY harder than examples • What else - what personal connections can be made? purpose?	• Real-life connections, hands-on activities that are relatable to students and match learning objective
 Gifted, SpEd, EL	• Provides vocabulary, offers ELL differentiation	• Need more resources, less hunting, need more "entry level" practice • Not enough, scaffold more. Examples and resources needed	• Need more "entry-level" practice and resources for scaffolded learning
 Differentiation	• Has questions to ask to find where struggle is "error alert" • Some examples.	• Different problem sets for skill ability • Need skills broken down into smaller chunks. Provide scaffolding.	• Error analysis activities are great • Need more scaffolding for math readiness

Algebra 1

Points to Consider	Positives - What works well here?	Changes - What could be improved?	Summary
☐ Standard Alignment	• Typical standard alignment	• Standards alignment gets to key standards before their practice ACT	• Standards aligned to AZ, sequences makes sense to current testing calendar
☐ Learning Objectives	• Gives learning objectives to teachers	• Needs to be more direct	• Clear and direct learning objectives
☐ Conceptual	• Has several conceptual ideas	• Gives a better vertical alignment with _____ standards together	• Conceptual ideas that tie into standards
☐ Procedural/Fluency	• Its there but hardly used as I am not a fan	• An easier way to see worked out problems such as QR code	• Homework procedural/fluency support at home with QR codes or videos
☐ Application	• ??	• Have application be its own solutions	•

☐ Gifted, SpEd, EL	• I have never looked into that in this book	• What editale resources to personalize for students	•
☐ Differentiation	•	•	•

Geometry

Points to Consider	Positives - What works well here?	Changes - What could be improved?	Summary
☐ Standard Alignment	• Good progression and aligned	•	• Clearly aligned to state standards, good progression
☐ Learning Objectives	• Clearly listed in each lesson	•	• Clearly listed learning objectives
☐ Conceptual	•	•	•
☐ Procedural/Fluency	•	• For regular it could use more procedural practice	• More problems in procedural/fluency practice
☐ Application	• Many lessons have a model and discuss intro	•	• Lesson have clear application problems with modelling and discussion

☐ Gifted, SpEd, EL	• Great applications for honors and gifted	• Not enough leveled questions for SpEd and EL	• Applications available for honors and gifted students, scaffolding for SpEd and ELL
☐ Differentiation	• Has great additional worksheets for practice	•	• Additional resources for extended/varied practice

Algebra 2 - Pathways

Points to Consider	Positives - What works well here?	Changes - What could be improved?	Summary
Standard Alignment	- Highly aligned - Teacher resources mention standards by name - Makes good connections between different types of functions	n/a	Standard alignment
Learning Objectives	- Listed at the beginning of each "instructor version of lesson" - Through the instructional notes version, the WHY and goal trying to get students to reach	- Could have a student-friendly versions written for teacher to put on the board - Add bulleted objectives to each module page	- Student-friendly learning objectives - Clear formatting/bulleted objectives to make planning easier - Learning objectives identify the "why"
Conceptual	- Explains WHY things are taught in a certain way. Derive equations and requires explanations - Most lessons open up with a conceptual opportunity to introduce the math with, makes math connections to realistic stuff	- Doesn't always feel accessible	- Conceptual examples that make math connections to real-life - Conceptual problems are accessible to all learners

 Procedural/Fluency	• Very heavy on this for procedural • • Each module builds upon previous but still allows for some flip flopping	• Practice problems are limited for students who like repetition • • Could provide more supplemental worksheets to repeat concepts as much as needed	• Procedural/fluency builds upon previous lessons • • Offers extra resources for students needing more repetition on fluency
 Application	• Most lessons have at least one application • • Encourages lots of discussion and application problems, applets available	• Some modules have more application than others (some feel “contrived” or “forced” • •	• Applications that encourage discussion and engagement, authentic not forced, technology enabled
 Gifted, SpEd, EL	• Great for gifted. Focuses on the “why” things work which many gifted kids enjoy and want • • If used appropriately can work for any level • •	• Difficult for ELL, very vocabulary heavy and reading heavy. • Many say Pathways isn’t good for SpEd. • • May be tough for ELL, very wordy	• Connects to real-life applications so gifted, SpEd, EL can relate • • Resources that support vocabulary • • Not too word-heavy on instruction
 Differentiation	• Has starred exercises that each student should do and extra ones for challenge • • Causes lots of thinking discussion	• More for gifted and below-level students. Difficult to create a scaffold up for students • •	• Thinking tasks for all levels • • Scaffolding for all learners

1. Teaching Methodology & Approaches

- Emphasizes diverse teaching strategies for engaging students.
 - Focuses on hands-on activities, visual aids, and manipulatives.
 - Encourages critical thinking, problem-solving, and productive struggle.
 - Promotes student autonomy through exploration and guided tasks.
 - Includes timely feedback, fun projects, and games to maintain engagement.
 - Balances conceptual understanding and procedural fluency.
-

2. Student-Centered Learning

- Puts students' needs, preferences, and growth at the center of instruction.
 - Encourages self-reflection, perseverance, and confidence building.
 - Uses real-world connections to make learning meaningful.
 - Provides a variety of tasks and challenges tailored to different learning levels.
 - Focuses on engagement through exploration, example-based learning, and practice.
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3. Differentiation & Accessibility

- Offers tiered materials and scaffolded tasks to meet diverse needs.
 - Provides varied assessments and tools for different learners (e.g., EL, SPED).
 - Includes resources like guided notes, manipulatives, and digital options.
 - Ensures built-in remediation and extension opportunities.
 - Aims to make learning accessible to all students, regardless of ability.
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4. Teacher Support & Professional Development

- Supports teachers with ongoing training and resources.
 - Provides clear instructional guides, videos, and manuals.
 - Ensures teacher materials are user-friendly and adaptable.
 - Offers parent resources to align home and school learning experiences.
 - Prioritizes professional development, especially for new teachers.
-

5. Curriculum Design & Structure

- Aligns with standards and emphasizes real-world applications.
 - Utilizes spiral learning for continuous review and reinforcement.
 - Breaks lessons into manageable, thin-sliced segments for ease of understanding.
 - Provides varied assessments (different question types, difficulty levels).
 - Ensures a realistic and adaptable pacing guide for different learning speeds.
-

6. Resources & Materials

- Offers a wide range of materials (digital tools, printed resources, pre-created slides).
 - Uses games, manipulatives, and practice pages for hands-on engagement.
 - Provides resources for both teachers and students to facilitate learning.
 - Ensures resources are adaptable to different teaching contexts and student needs.
 - Digital tools should enhance learning through real-time feedback and differentiation.
-

7. Student Assessment & Feedback

- Uses varied assessments that align with standards and reflect real-world scenarios.
 - Offers opportunities for retesting and continuous review.
 - Provides targeted feedback to guide student improvement.
 - Implements different assessment types (e.g., written, digital, practical).
 - Ensures assessments are designed to promote learning and not just evaluate.
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10. Parent & Community Involvement

- Involves parents in supporting student learning, especially at home.
 - Provides resources to help parents reinforce classroom learning.
 - Promotes clear communication between school and home.
 - Encourages community engagement to strengthen the learning environment.
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8. Technology Integration

- Leverages technology to enhance teaching and learning.
 - Focuses on user-friendly digital platforms for both students and teachers.
 - Uses digital homework, translated resources, and online assessments for accessibility.
 - Technology should complement and support in-class learning experiences.
 - Provides tools that streamline the learning process and offer real-time feedback.
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9. Real-World Connections & Applications

- Ensures content is connected to real-world applications and future career paths.
 - Uses problems and tasks based on real-life contexts to increase relevance.
 - Encourages critical thinking and problem-solving related to real-world challenges.
 - Focuses on making learning practical and applicable outside the classroom.
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