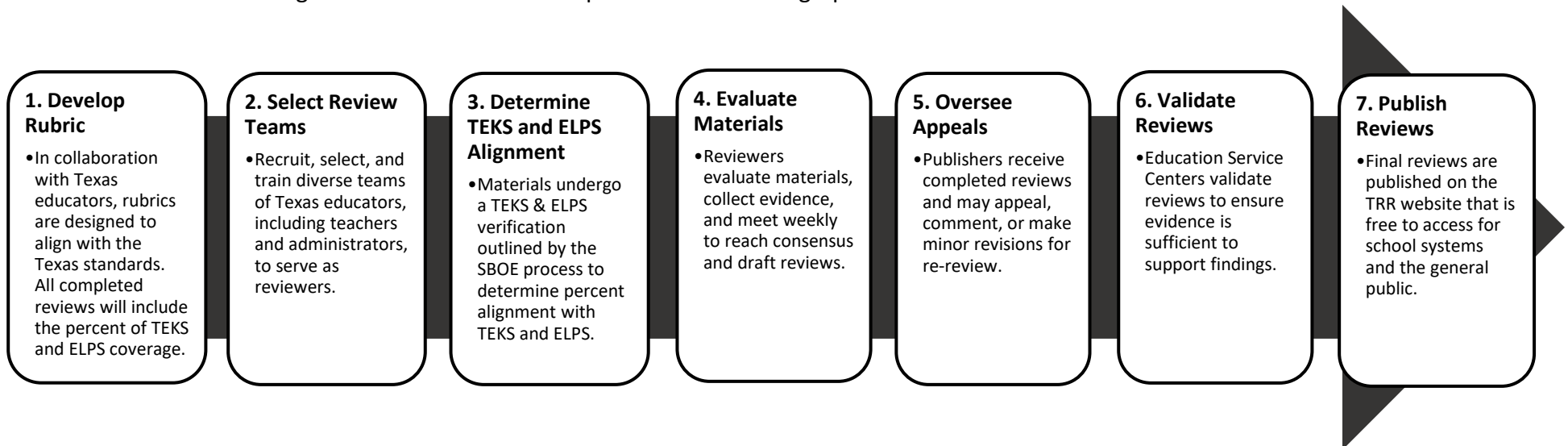# Texas Resource Review (TRR)
Mathematics Grades K – 8

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.
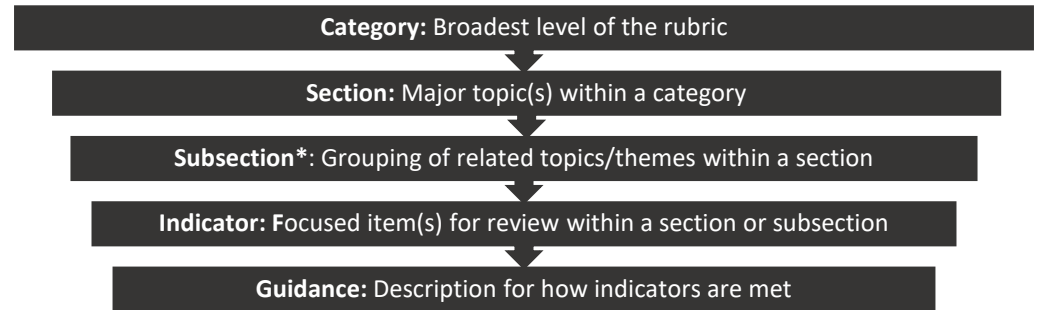
Overview of the Process

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:

1. Develop Rubric
- In collaboration with Texas educators, rubrics are designed to align with the Texas standards. All completed reviews will include the percent of TEKS and ELPS coverage.

2. Select Review Teams
- Recruit, select, and train diverse teams of Texas educators, including teachers and administrators, to serve as reviewers.

3. Determine TEKS and ELPS Alignment
- Materials undergo a TEKS & ELPS verification outlined by the SBOE process to determine percent alignment with TEKS and ELPS.

4. Evaluate Materials
- Reviewers evaluate materials, collect evidence, and meet weekly to reach consensus and draft reviews.

5. Oversee Appeals
- Publishers receive completed reviews and may appeal, comment, or make minor revisions for re-review.

6. Validate Reviews
- Education Service Centers validate reviews to ensure evidence is sufficient to support findings.

7. Publish Reviews
- Final reviews are published on the TRR website that is free to access for school systems and the general public.

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

Category: Broadest level of the rubric

Section: Major topic(s) within a category

Subsection*: Grouping of related topics/themes within a section

Indicator: Focused item(s) for review within a section or subsection

Guidance: Description for how indicators are met

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.

Mathematics Rubric
Grades K-8

Texas Resource Review

TEA — Texas Education Agency®

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

❶ 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%

❷ 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

❸ 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	Materialsprovide 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

❺ 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

❻ 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

❼ 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.