Instructional Materials Review and Approval

Mathematics K–12 Quality Rubric

Approved by the State Board of Education on November 22, 2024

Implementation Quality

1. Intentional Instructional Design

Materials support educators in effective implementation through intentional course, unit, and lesson-level design.

1.1 Course-Level Design

1.1a	Materials include a scope and sequence outlining the TEKS, ELPS, and concepts taught in the course.
1.1b	Materials include suggested pacing (pacing guide/calendar) to support effective implementation for various instructional calendars (e.g., varying numbers of instructional days – 165, 180, 210).
1.1c	Materials include an explanation for the rationale of unit order as well as how concepts to be learned connect throughout the course.
1.1d	Materials include protocols with corresponding guidance for unit and lesson internalization.
1.1e	Materials include resources and guidance for instructional leaders to support teachers with implementing the materials as designed.

1.2 Unit-Level Design

1.2a	Materials include comprehensive unit overviews that provide the background content knowledge and academic vocabulary necessary to effectively teach the concepts in the unit.
1.2b	Materials contain supports for families in both Spanish and English for each unit with suggestions on supporting the progress of their student.

1.3 Lesson-Level Design

1.3a	Materials include comprehensive, structured, detailed lesson plans that include daily objectives, questions, tasks, materials, and instructional assessments required to meet the content and language standards of the lesson (aligned with the TEKS and the ELPS).
1.3b	Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson, and the suggested timing for each lesson component.
1.3c	Materials include guidance on the effective use of lesson materials for extended practice (e.g., homework, extension, enrichment).

2. Progress Monitoring

Materials support educators in effective implementation through frequent, strategic opportunities to monitor and respond to student progress.

2.1 Instructional Assessments

2.1a	Materials include a variety of instructional assessments at the unit and lesson level (including diagnostic, formative, and summative) that vary in types of tasks and questions.
2.1b	Materials include the definition and intended purpose for the types of instructional assessments included.
2.1c	Materials include teacher guidance to ensure consistent and accurate administration of instructional assessments.
2.1d	Diagnostic, formative, and summative assessments are aligned to the TEKS and objectives of the course, unit, or lesson.
2.1e	Instructional assessments include TEKS-aligned items at varying levels of complexity.

2.2 Data Analysis and Progress Monitoring

2.2a	Instructional assessments and scoring information provide guidance for interpreting student performance.
2.2b	Materials provide guidance for the use of included tasks and activities to respond to student trends in performance on assessments.
2.2c	Materials include tools for teachers to track student progress and growth, and tools for students to track their own progress and growth.

3. Supports for All Learners

Materials support educators in reaching all learners through design focused on engagement, representation, and action/expression for learner variability.

3.1 Differentiation and Scaffolds

3.1a	Materials include teacher guidance for differentiated instruction, activities, and paired (scaffolded) lessons for students who have not yet reached proficiency on grade-level content and skills.
3.1b	Materials include pre-teaching or embedded supports for unfamiliar vocabulary and references in text (e.g., figurative language, idioms, academic language). (T/S)
3.1c	Materials include teacher guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skill.

3.2 Instructional Methods

3.2a	Materials include explicit (direct) prompts and guidance to support the teacher in modeling and explaining the concept(s) to be learned.
3.2b	Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches.
3.2c	Materials support multiple types of practice (e.g., guided, independent, collaborative) and include guidance for teachers and recommended structures (e.g., whole group, small group, individual) to support effective implementation.

3.3 Support for Emergent Bilingual Students

3.3a	Materials include teacher guidance on providing linguistic accommodations for various levels of language proficiency [as defined by the English Language Proficiency Standards (ELPS)], which are designed to engage students in using increasingly more academic language.
3.3b	Materials include implementation guidance to support teachers in effectively using the materials in state-approved bilingual/ESL programs.
3.3c	Materials include embedded guidance for teachers to support emergent bilingual students in developing academic vocabulary, increasing comprehension, building background knowledge, and making cross-linguistic connections through oral and written discourse.
3.3d	If designed for dual language immersion (DLI) programs, materials include resources that outline opportunities to address metalinguistic transfer from English to the partner language.

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Learning Quality

4. Depth and Coherence of Key Concepts

Materials are designed to meet the rigor of the standards while connecting concepts within and across grade levels/courses.

4.1 Depth of Key Concepts

4.1a	Practice opportunities over the course of a lesson and/or unit (including instructional assessments) require students to demonstrate depth of understanding aligned to the TEKS.
4.1b	Questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics TEKS.

4.2 Coherence of Key Concepts

4.2a	Materials demonstrate coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts.
4.2b	Materials demonstrate coherence across units by connecting the content and language learned in previous courses/grade levels and what will be learned in future courses/grade levels to the content to be learned in the current course/grade level.
4.2c	Materials demonstrate coherence at the lesson level by connecting students' prior knowledge of concepts and procedures from the current and prior grade level(s) to new mathematical knowledge and skills.

4.3 Spaced and Interleaved Practice

4.3a	Materials provide spaced retrieval opportunities with previously learned skills and concepts across lessons and units.
4.3b	Materials provide interleaved practice opportunities with previously learned skills and concepts across lessons and units.

5. Balance of Conceptual and Procedural Understanding

Materials are designed to balance conceptual understanding, procedural skills, and fluency.

5.1 Development of Conceptual Understanding

5.1a	Questions and tasks require students to interpret, analyze, and evaluate models and representations for mathematical concepts and situations.
5.1b	Questions and tasks require students to create models to represent mathematical situations.
5.1c	Questions and tasks provide opportunities for students to apply conceptual understanding to new problem situations and contexts.

5.2 Development of Fluency

5.2a	Materials provide tasks that are designed to build student automaticity and fluency necessary to complete grade-level tasks.
5.2b	Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures within the lesson and/or throughout a unit.
5.2c	Materials provide opportunities for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy within the lesson and throughout a unit.
5.2d	Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches.

5.3 Balance of Conceptual Understanding and Procedural Fluency

5.3a	Materials explicitly state how the conceptual and procedural emphasis of the TEKS are addressed.
5.3b	Questions and tasks include the use of concrete models and manipulatives, pictorial representations (figures/drawings), and abstract representations, as required by the TEKS.
5.3c	Materials include supports for students in connecting, creating, defining, and explaining concrete and representational models to abstract (symbolic/numeric/algorithmic) concepts, as required by the TEKS.

5.4 Development of Academic Mathematical Language

5.4a	Materials provide opportunities for students to develop academic mathematical language using visuals, manipulatives, and other language development strategies.
5.4b	Materials include embedded teacher guidance to scaffold and support students' development and use of academic mathematical vocabulary in context.
5.4c	Materials include embedded teacher guidance to support the application of appropriate mathematical language to include vocabulary, syntax, and discourse to include guidance to support mathematical conversations that provide opportunities for students to hear, refine, and use math language with peers and develop their math language toolkit over time as well as guide teachers to support student responses using exemplar responses to questions and tasks.

5.5 Process Standards Connections

5.5a	TEKS process standards are integrated appropriately into the materials.
5.5b	Materials include a description of how TEKS process standards are incorporated and connected throughout the course.
5.5c	Materials include a description for each unit of how TEKS process standards are incorporated and connected throughout the unit.
5.5d	Materials include an overview of the TEKS process standards incorporated into each lesson.

6. Productive Struggle

Materials support students in applying disciplinary practices to productive problem-solving, including explaining and revising their thinking.

6.1 Student Self-Efficacy

6.1a	Materials provide opportunities for students to think mathematically, persevere through solving problems, and to make sense of mathematics.
6.1b	Materials support students in understanding, explaining, and justifying that there can be multiple ways to represent and solve problems and complete tasks.
6.1c	Materials are designed to require students to make sense of mathematics through multiple opportunities for students to do, write about, and discuss math with peers and teachers.

6.2 Facilitating Productive Struggle

6.2a	Materials support teachers in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, and justifications.
6.2b	Materials include prompts and guidance to support teachers in providing explanatory feedback based on student responses and anticipated misconceptions.