

# Instructional Materials Review and Approval

Supplemental 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 and lesson-level design.

#### 1.1 Course-Level Design

	K-5	6–12
1.1a	Materials include an alignment guide outlining the TEKS, ELPS, and concepts covered, with a rationale for learning paths across grade levels (vertical alignment) and within the same grade level (horizontal alignment) as designed in the materials.	Materials include an alignment guide outlining the TEKS, ELPS, and concepts covered, with a rationale for learning paths across grade levels (vertical alignment) and within the same grade level (horizontal alignment) as designed in the materials.
1.1b	Materials include an implementation guide with usage recommendations and strategies for effective educator use in various contexts, such as just-in-time supports, advanced learning, or as a course.	Materials include an implementation guide with usage recommendations and strategies for effective educator use, such as just-in-time supports, advanced learning, or as a course.
1.1c	Materials include a TEKS correlation guide with recommended skill entry points based on diagnostic assessment results.	Materials include a TEKS correlation guide with recommended skill entry points based on diagnostic assessment results.
1.1d	Materials include protocols with corresponding guidance for unit and lesson internalization.	Materials include protocols with corresponding guidance for unit and lesson internalization.
1.1e	Materials include resources and guidance for instructional leaders to support educators with implementing the materials as designed.	Materials include resources and guidance for instructional leaders to support educators with implementing the materials as designed.

#### 1.2 Lesson-Level Design

	K-5	6–12
1.2a	If designed to be static, materials include detailed lesson plans with learning objectives, teacher and student materials, lesson components with suggested timeframes, and assessment resources aligned with the TEKS and ELPS.	If designed to be static, materials include detailed lesson plans with learning objectives, teacher and student materials, lesson components with suggested timeframes, and assessment resources aligned with the TEKS and ELPS.
1.2b	If designed to be adaptive, materials include responsive learning objectives, lesson components with suggested timeframes, and assessment resources aligned with the TEKS and ELPS.	If designed to be adaptive, materials include detailed lesson overviews with learning objectives, lesson components with suggested timeframes, and assessment resources aligned with the TEKS and ELPS.
1.2c	Materials contain support for families in Spanish and English for each unit, with suggestions on supporting the progress of their student(s).	Materials contain support for families in Spanish and English for each unit, with suggestions on supporting the progress of their student(s).



# 2. Progress Monitoring

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

#### **2.1 Instructional Assessments**

	K-5	6–12
2.1a	Materials include the definition and intended purpose for the types of instructional assessments.	Materials include the definition and intended purpose for the types of instructional assessments.
2.1b	Materials include guidance to ensure consistent and accurate administration of instructional assessments.	Materials include guidance to ensure consistent and accurate administration of instructional assessments.
2.1c	Digital assessments include printable versions and accommodations, including text-to-speech, content and language supports, and calculators, that educators can enable or disable to support individual students.	Digital assessments include printable versions and accommodations, including text-to-speech, content and language supports, and calculators, that educators can enable or disable to support individual students.
2.1d	Materials include diagnostic assessments with TEKS-aligned tasks or questions, including interactive item types with varying complexity levels.	Materials include diagnostic assessments with TEKS-aligned tasks or questions, including interactive item types with varying complexity levels.
2.1e	Materials include a variety of formative assessments with TEKS-aligned tasks or questions, including interactive item types with varying complexity levels.	Materials include a variety of formative assessments with TEKS-aligned tasks or questions, including interactive item types with varying complexity levels.

#### 2.2 Data Analysis and Progress Monitoring

	К–5	6–12
2.2a	Instructional assessments include scoring information and guidance for interpreting student performance, including rationale for each correct and incorrect response.	Instructional assessments include scoring information and guidance for interpreting student performance, including rationale for each correct and incorrect response.
2.2b	Materials provide guidance for the use of included tasks and activities to respond to student trends in performance on assessments.	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.	Materials include tools for teachers to track student progress and growth, and tools for students to track their own progress and growth.
2.2d	If designed to be static, materials provide prompts and guidance to support educators in conducting frequent checks for understanding at key points throughout each lesson or activity.	If designed to be static, materials provide prompts and guidance to support educators in conducting frequent checks for understanding at key points throughout each lesson or activity.
2.2e	If designed to be adaptive, materials provide frequent checks for understanding at key points throughout each lesson or activity.	If designed to be adaptive, materials provide frequent checks for understanding at key points throughout each lesson or activity.



# 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

	K-5	6–12
3.1a	Materials include explicit educator guidance for lessons or activities scaffolded for students who have not yet reached proficiency in prerequisite or grade-level concepts and skills.	Materials include explicit educator guidance for lessons or activities scaffolded for students who have not yet reached proficiency in prerequisite or grade-level concepts and skills.
3.1b	Materials include explicit educator guidance for language supports, including pre-teaching and embedded supports for developing academic vocabulary and unfamiliar references in text.	Materials include explicit educator guidance for language supports, including pre-teaching and embedded supports for developing academic vocabulary and unfamiliar references in text.
3.1c	Materials include explicit educator guidance for enrichment and extension activities for students who have demonstrated proficiency in grade-level and above grade-level content and skills.	Materials include explicit educator guidance for enrichment and extension activities for students who have demonstrated proficiency in grade-level and above grade-level content and skills.
3.1d	Digital materials include accommodations, including text-to-speech, content and language supports, and calculators that educators can enable or disable to support individual students.	Digital materials include accommodations, including text- to-speech, content and language supports, and calculators that educators can enable or disable to support individual students.
3.1e	Materials include educator guidance on offering options and supports for students to demonstrate understanding of mathematical concepts in various ways, such as perform, express, and represent.	Materials include educator guidance on offering options and supports for students to demonstrate understanding of mathematical concepts in various ways, such as perform, express, and represent.



#### 3.2 Instructional Methods

	К–5	6–12
<b>3.2</b> a	Materials include explicit (direct) prompts and guidance for educators to build knowledge by activating prior knowledge, anchoring big ideas, and highlighting and connecting key patterns, features, and relationships through multiple means of representation.	Materials include explicit (direct) prompts and guidance for educators to build knowledge by activating prior knowledge, anchoring big ideas, and highlighting and connecting key patterns, features, and relationships through multiple means of representation.
3.2b	If designed to be static, materials include educator guidance for effective lesson delivery and facilitation using various instructional approaches.	If designed to be static, materials include educator guidance for effective lesson delivery and facilitation using various instructional approaches.
3.2c	Materials include multi-tiered intervention methods for various types of practice and structures and educator guidance to support effective implementation.	Materials include multi-tiered intervention methods for various types of practice and structures and educator guidance to support effective implementation.
3.2d	Materials include enrichment and extension methods that support various forms of engagement, and guidance to support educators in effective implementation.	Materials include enrichment and extension methods that support various forms of engagement, and guidance to support educators in effective implementation.
3.2e	Materials include prompts and guidance to support educators in providing timely feedback during lesson delivery.	Materials include prompts and guidance to support educators in providing timely feedback during lesson delivery.



# **3.3** Support for Emergent Bilingual Students

	K-5	6–12
<b>3.3</b> a	If designed to be static, materials include educator guidance on providing and incorporating linguistic accommodations for all 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.	If designed to be static, materials include educator guidance on providing and incorporating linguistic accommodations for all 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	If designed to be adaptive, materials include embedded linguistic accommodations for all 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.	If designed to be adaptive, materials include embedded linguistic accommodations for all 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.
3.3c	Materials include implementation guidance to support educators in effectively using the materials in stateapproved bilingual/ESL programs.	Materials include implementation guidance to support educators in effectively using the materials in stateapproved bilingual/ESL programs.
3.3d	Materials include embedded guidance to support emergent bilingual students in developing academic vocabulary, increasing comprehension, building background knowledge, and making cross-linguistic connections through oral and written discourse.	Materials include embedded guidance to support emergent bilingual students in developing academic vocabulary, increasing comprehension, building background knowledge, and making cross-linguistic connections through oral and written discourse.
3.3e	If designed for dual language immersion (DLI) programs, materials include resources that outline opportunities to address metalinguistic transfer from English to the partner language.	If designed for dual language immersion (DLI) programs, materials include resources that outline opportunities to address metalinguistic transfer from English to the partner language.



# **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**

	K-5	6–12
4.1a	Practice opportunities throughout learning pathways (including instructional assessments) require students to demonstrate depth of understanding aligned to the TEKS.	Practice opportunities throughout learning pathways (including instructional assessments) require students to demonstrate depth of understanding aligned to the TEKS.
4.1b	Questions and tasks, including enrichment and extension materials, increase in rigor and complexity, leading to grade-level and above grade-level proficiency in the mathematics TEKS.	Questions and tasks, including enrichment and extension materials, increase in rigor and complexity, leading to grade-level and above grade-level proficiency in the mathematics TEKS.

#### **4.2 Coherence of Key Concepts**

		K-5	6–12
4.:	a horizonta	s demonstrate coherence across concepts ally within the grade level by connecting patterns, , and relationships.	Materials demonstrate coherence across concepts horizontally within the grade level by connecting patterns, big ideas, and relationships.
4.2	<b>b</b> and grad	s demonstrate coherence vertically across concepts e bands, including connections from grade K–6, by ng patterns, big ideas, and relationships.	Materials demonstrate coherence vertically across concepts and grade bands, including connections from grades 3–12, by connecting patterns, big ideas, and relationships.
4.:	activities c concepts	by connecting students' prior knowledge of and procedures to the mathematical concepts to ed in the current grade level and future grade	Materials demonstrate coherence across lessons or activities by connecting students' prior knowledge of concepts and procedures to the mathematical concepts to be learned in the current grade level and future grade levels.

#### **4.3 Coherence and Variety of Practice**

		K-5	6–12
4.	. <b>3</b> a	Materials provide spaced retrieval opportunities with previously learned skills and concepts across learning pathways.	Materials provide spaced retrieval opportunities with previously learned skills and concepts across learning pathways.
4.	3b	Materials provide interleaved practice opportunities with previously learned skills and concepts across learning pathways.	Materials provide interleaved practice opportunities with previously learned skills and concepts across learning pathways.



# 5. Balance of Conceptual and Procedural Understanding

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

#### **5.1 Development of Conceptual Understanding**

	K-5	6–12
5.1a	Questions and tasks provide opportunities for students to interpret, analyze, and evaluate models and representations for mathematical concepts and situations.	Questions and tasks provide opportunities for students to interpret, analyze, and evaluate mathematical concepts and complex, real-world situations.
5.1b	Questions and tasks provide opportunities for students to create concrete models and pictorial representations to represent mathematical situations.	Questions and tasks provide opportunities for students to create concrete models and representations of mathematical situations.
5.1c	Questions and tasks provide opportunities for students to apply conceptual understanding to new problem situations and contexts.	Questions and tasks provide opportunities for students to apply conceptual understanding to new problem situations and contexts.

#### **5.2 Development of Fluency**

	K-5	6–12
5.2a	Materials provide tasks that are designed to build student automaticity and fluency necessary to complete grade-level mathematical tasks.	Materials provide tasks that are designed to build student automaticity and fluency necessary to complete grade-level mathematical tasks.
5.2b	Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures throughout learning pathways.	Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures throughout learning pathways.
5.2c	Materials provide opportunities for students to evaluate mathematical representations, models, strategies, and solutions for efficiency, flexibility, and accuracy throughout learning pathways.	Materials provide opportunities for students to evaluate mathematical representations, models, strategies, and solutions for efficiency, flexibility, and accuracy throughout learning pathways.
5.2d	Materials contain guidance to support students in selecting increasingly efficient approaches to solve mathematics problems.	Materials contain guidance to support students in selecting the most efficient approaches when solving mathematics problems.



# 5.3 Balance of Conceptual Understanding and Procedural Fluency

	K-5	6–12
5.3a	Materials explicitly state how the conceptual and procedural emphasis of the TEKS are addressed.	Materials explicitly state how the conceptual and procedural emphasis of the TEKS are addressed.
5.3b	Questions and tasks provide opportunities for students to use concrete models, pictorial representations, and abstract models as required by the TEKS.	Questions and tasks provide opportunities for students to use concrete models, pictorial representations, and abstract models 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.	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**

•	K-5	6–12
5.4a	Materials provide opportunities for students to develop academic mathematical language using visuals, manipulatives, or other language development strategies.	Materials provide opportunities for students to develop academic mathematical language using visuals, manipulatives, or other language development strategies.
5.4b	Materials include embedded educator guidance to scaffold, support, and extend students' use of academic mathematical vocabulary in context when communicating with peers and educators.	Materials include embedded educator guidance to scaffold, support, and extend students' use of academic mathematical vocabulary in context when communicating with peers and educators.
5.4c	Materials include embedded guidance to support student application of appropriate mathematical language and academic vocabulary in discourse.	Materials include embedded guidance to support student application of appropriate mathematical language and academic vocabulary in discourse.
5.4d	Materials include embedded guidance to facilitate mathematical conversations allowing students to hear, refine, and use math language with peers.	Materials include embedded guidance to facilitate mathematical conversations allowing students to hear, refine, and use math language with peers.
5.4e	Materials include embedded guidance to anticipate a variety of student answers including exemplar responses to questions and tasks, including guidance to support and/or redirect inaccurate student responses.	Materials include embedded guidance to anticipate a variety of student answers including exemplar responses to questions and tasks, including guidance to support and/or redirect inaccurate student responses.



#### **5.5 Process Standards Connections**

	К–5	6–12
5.5a	TEKS process standards are integrated appropriately into the materials.	TEKS process standards are integrated appropriately into the materials.
5.5b	Materials include a description of how process standards are incorporated and connected throughout the learning pathways.	Materials include a description of how process standards are incorporated and connected throughout the learning pathways.
5.5c	Materials include an overview of the TEKS process standards incorporated into each lesson.	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**

	K-5	6–12
6.1a	Materials provide opportunities for students to think mathematically, persevere through solving problems, and to make sense of mathematics.	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 solve problems and complete tasks.	Materials support students in understanding, explaining, and justifying that there can be multiple ways to 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/or educators.	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/or educators.

#### **6.2 Facilitating Productive Struggle**

	K-5	6–12
6.2a	Materials support educators in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, and justifications.	Materials support educators in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, justifications, and multiple points of entry.
6.2b	Materials include prompts and guidance to support educators in providing explanatory feedback based on student responses and anticipated misconceptions.	Materials include prompts and guidance to support educators in providing explanatory feedback based on student responses and anticipated misconceptions.