

IMRA Review Cycle 2024 Report



Publisher Name	Program Name
Accelerate Learning	STEMscopes Texas Math
Subject	Grade Level
Mathematics	6

Texas Essential Knowledge and Skills (TEKS) Coverage: 100%
English Language Proficiency Standards (ELPS) Coverage: 100%
Quality Review Overall Score: 227 / 227

IMRA Reviewers

Flags for Suitability Noncompliance 0

Indicator	Count of Flags
1. Prohibition on Common Core	0
2. Alignment with Public Education’s Constitutional Goal	0
3. Parental Rights and Responsibilities	0
4. Prohibition on Forced Political Activity	0
5. Protecting Children’s Innocence	0
6. Promoting Sexual Risk Avoidance	0
7. Compliance with the Children’s Internet Protection Act (CIPA)	0

Flags for Suitability Compliance 5

Indicator	Count of Flags
Alignment with Public Education’s Constitutional Goal, 2.1.1	5
Promoting Sexual Risk Avoidance, 6.2	0

Alleged Factual Errors 2

Public Feedback

Flags for Suitability Noncompliance 0

Rubric Indicator	Count of Flags
1. Prohibition on Common Core	0
2. Alignment with Public Education’s Constitutional Goal	0
3. Parental Rights and Responsibilities	0
4. Prohibition on Forced Political Activity	0
5. Protecting Children’s Innocence	0
6. Promoting Sexual Risk Avoidance	0
7. Compliance with the Children’s Internet Protection Act (CIPA)	0

Alleged Factual Errors 0

Public Comments 0

Quality Review Summary

Rubric Section	Quality Rating
1. Intentional Instructional Design	53 / 53
2. Progress Monitoring	28 / 28
3. Supports for All Learners	32 / 32
4. Depth and Coherence of Concepts	23 / 23
5. Balance of Conceptual and Procedural Understanding	66 / 66
6. Productive Struggle	25 / 25

Strengths

- 1.1 Course-Level Design: Materials include a scope and sequence outlining the TEKS, ELPS, concepts, and knowledge taught in the course, with suggested pacing guides for various instructional calendars, explanations for the rationale of unit order and concept connections, guidance for unit and lesson internalization, and resources to support administrators and instructional coaches in implementing the materials as designed.
- 1.2 Unit-Level Design: Materials include comprehensive unit overviews that provide background content knowledge and academic vocabulary necessary for effective teaching, and contain supports for families in both Spanish and English with suggestions for supporting their student's progress.
- 1.3 Lesson-Level Design: Materials include comprehensive, structured lesson plans with daily objectives, questions, tasks, materials, and instructional assessments required to meet the content and language standards. They also provide a lesson overview outlining the suggested timing for each component, a list of necessary teacher and student materials, and guidance on the effective use of lesson materials for extended practice, such as homework, extension, and enrichment.
- 2.1 Instructional Assessments: Materials include a variety of instructional assessments at the unit and lesson levels, including diagnostic, formative, and summative assessments with varied tasks and questions, along with definitions and purposes, teacher guidance for consistent administration, alignment to TEKS and objectives, and standards-aligned items at different levels of complexity.
- 2.2 Data Analysis and Progress Monitoring: Materials include instructional assessments and scoring information that provide guidance for interpreting and responding to student performance, offer guidance on using tasks and activities to address student performance trends, and include tools for students to track their own progress and growth.

- 3.1 Differentiation and Scaffolds: Materials include teacher guidance for differentiated instruction, activities, and scaffolded lessons for students who have not yet reached proficiency, pre-teaching or embedded supports for unfamiliar vocabulary and references in text, and guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skills.
- 3.2 Instructional Methods: Materials include prompts and guidance to support teachers in modeling, explaining, and directly and explicitly communicating concepts to be learned. They provide teacher guidance and recommendations for effective lesson delivery using various instructional approaches, and support multiple types of practice with guidance on recommended structures, such as whole group, small group, and individual settings, to ensure effective implementation.
- 3.3 Support for Emergent Bilingual Students: Materials provide guidance for teachers in bilingual/ESL programs, support academic vocabulary and comprehension, and include resources for metalinguistic transfer in dual language immersion programs.
- 4.1 Depth of Key Concepts: Materials provide practice opportunities and instructional assessments that require students to demonstrate depth of understanding aligned to the TEKS, with questions and tasks that progressively increase in rigor and complexity, leading to grade-level proficiency in mathematics standards.
- 4.2 Coherence of Key Concepts: Materials demonstrate coherence across courses and grade bands through a logically sequenced scope and sequence, explicitly connecting patterns, big ideas, and relationships between mathematical concepts, linking content and language across grade levels, and connecting students' prior knowledge to new mathematical knowledge and skills.
- 4.3 Spaced and Interleaved Practice: Materials provide spaced retrieval and interleaved practice opportunities with previously learned skills and concepts across lessons and units.
- 5.1 Development of Conceptual Understanding: Materials include questions and tasks that require students to interpret, analyze, and evaluate various models for mathematical concepts, create models to represent mathematical situations, and apply conceptual understanding to new problem situations and contexts.
- 5.2 Development of Fluency: Materials provide tasks designed to build student automaticity and fluency for grade-level tasks, offer opportunities to practice efficient and accurate mathematical procedures, evaluate procedures for efficiency and accuracy, and include embedded supports for teachers to guide students toward more efficient approaches.
- 5.3 Balance of Conceptual Understanding and Procedural Fluency: Materials

explicitly state how the conceptual and procedural emphasis of the TEKS are addressed, include questions and tasks that use concrete models, pictorial representations, and abstract representations, and provide supports for students in connecting and explaining these models to abstract concepts.

- 5.4 Development of Academic Mathematical Language: Materials provide opportunities for students to develop academic mathematical language using visuals, manipulatives, and language strategies, with embedded teacher guidance on scaffolding vocabulary, syntax, and discourse, and supporting mathematical conversations to refine and use math language.
- 5.5 Process Standards Connections: Materials integrate process standards appropriately, providing descriptions of how they are incorporated and connected

throughout the course, within each unit, and in each lesson.

- 6.1 Student Self-Efficacy: Materials provide opportunities for students to think mathematically, persevere through problem-solving, and make sense of mathematics, while supporting them in understanding multiple ways to solve problems and requiring them to engage with math through doing, writing, and discussion.
- 6.2 Facilitating Productive Struggle: Materials support teachers in guiding students to share and reflect on their problem-solving approaches, offering prompts and guidance for providing explanatory feedback based on student responses and anticipated misconceptions.

Challenges

- No challenges in this material

Summary

STEMscopes Texas Math is a Mathematics 6–8 program. The instructional materials promote conceptual understanding of mathematics through hands-on exploration, inquiry, and analysis using the research-based 5E + IA model (Engage, Explain, Elaborate, Evaluate, Intervention, and Acceleration). It offers vertically aligned instructional materials that cover all TEKS and ELPS. The materials support students by building concrete understanding before transitioning to representational models and abstract representations. The instructional materials provide detailed guidance for teachers, administrators, and families. Additionally, the program includes resources in both English and Spanish that benefit all learners, including students with disabilities, emergent bilingual, and gifted and talented students.

Campus and district instructional leaders should consider the following:

- The materials include teacher support for teaching students to understand and communicate mathematics through discourse and writing with arguments, justification, and explanations. These supports are woven throughout the materials, including questioning strategies at different Depth of Knowledge levels, interleaved practice, and spaced retrieval opportunities.
- The program is a comprehensive instructional materials that includes planning resources, teacher guidance, assessments, and an extensive selection of instructional materials for

remediation, on-level instruction, and extension. Teachers may benefit from training on the program components, including navigating the online platform.

Intentional Instructional Design

1.1	Course-Level Design	15/15
1.1a	Materials include a scope and sequence outlining the TEKS, ELPS, concepts, and knowledge taught in the course.	5/5
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).	2/2
1.1c	Materials include an explanation for the rationale of unit order as well as how concepts to be learned connect throughout the course.	2/2
1.1d	Materials include guidance, protocols, and/or templates for unit and lesson internalization.	2/2
1.1e	Materials include resources and guidance to support administrators and instructional coaches with implementing the materials as designed.	4/4

The materials include a scope and sequence outlining the TEKS, ELPS, concepts, and knowledge taught in the course. 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). Materials include an explanation for the rationale of unit order as well as how concepts to be learned connect throughout the course. Materials include guidance, protocols, and/or templates for unit and lesson internalization. Materials include resources and guidance to support administrators and instructional coaches with implementing the materials as designed.

Evidence includes, but is not limited to:

Materials include a scope-and-sequence outlining the TEKS, ELPS, concepts, and knowledge taught in the course.

- Grade 6, *Teacher Toolbox, Essentials, Curriculum Design* provides a scope and sequence that outlines each of the units by name, Texas Essential Knowledge and Skills (TEKS), English Language Proficiency Standards (ELPS), and Mathematical Process Standards (MPS). The total instructional days allotted for each unit are also included in the outline.
- Each unit and lesson in grade 6 materials includes an overview that outlines key concepts, a suggested calendar that identifies a scope and sequence, and content support that outlines the TEKS. For example, grade 6, *Fractions, Decimals, and Percents, Explore 1* outlines the mathematical process standards and ELPS by saying "The following English Language Proficiency Standards are supported: 1.BC, 2.CDGI, 3.ABCDEFHJ, 5.ABDEFG."

Materials include suggested pacing (pacing guide/calendar) to support effective implementation for various instructional calendars (e.g., varying numbers of instructional days–165, 180, and 210).

- Within the *Teacher Toolbox, Lesson Planning Resources* include planning guides to assist teachers in planning out the daily and weekly agendas based on a five-day week for 50-minute and block, 90-minute classes. Each document includes templates for both whole-group and small-group plans.
- Grade 6 materials include Suggested Scope Calendars that offer pacing for whole-group and small-group implementation for each set of *Explore* activities within the unit.
- In grade 6, *Teacher Toolbox, Essentials, Curriculum Design, Implementation Guide*, there is a suggested pacing calendar for 180 days. The guide states that "suggested activities...can be added or removed" to provide for other calendars and gives suggestions for 165 days and more than 180 days.

Materials include an explanation for the rationale of unit order as well as how concepts to be learned connect throughout the course.

- Materials include a grade 6 *Course Rationale Document* that provides a written explanation of unit order, how recurring topics appear throughout the units, and a description of the vertical alignment of standards throughout the course. For example, the *Fractions, Decimals, and Percents* unit course rationale is to "serve to bridge students' understanding of rational numbers with real-world applications, emphasizing the interconnectedness of fractions, decimals, and percents...Students develop a comprehensive understanding of these concepts, laying the groundwork for more complex problem solving involving proportional reasoning and financial literacy."
- Materials include a grade 6 *Course Rationale Document* that provides a chart to show how units are connected to the standards in four categories: 1) Number and Operations, 2) Proportionality, 3) Expressions, Equations, and Relationships, and 4) Measurement and Data.

Materials include guidance, protocols, and/or templates for unit and lesson internalization.

- The main page of each grade 6 unit includes TEKS, key concepts, and fundamental questions. On the right side of the page, under *Essentials*, is a *Suggested Scope Calendar* page. This page provides a protocol for lesson internalization for teachers to follow as they unwrap the content and lesson.
- The *Suggested Scope Calendar* for each unit includes a lesson internalization component. The lesson internalization component provides guidance on reading through lessons, connecting lessons to tasks, and assessing student progress. The *Scope Overview, Teacher Guide* includes a template for lesson internalization that provides the teacher with a place to annotate notes.

Materials include resources and guidance to support administrators and instructional coaches with implementing the materials as designed.

- In the *Source Navigation Guide*, a visual explains how STEMscopes implements the 5E learning model with an Intervention and Acceleration model for each unit. This visual aid, along with an explanation, aids administrators and instructional coaches in understanding the structure of each unit and lesson topic.
- Under Lesson Planning Resources in the Teacher Toolbox, Lesson Models document is available to assist users with adjusting the 5E model to the *Math Workshop* and *Guided Math* instruction models.

Intentional Instructional Design

1.2	Unit-Level Design	4/4
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.	2/2
1.2b	Materials contain supports for families in both Spanish and English for each unit with suggestions on supporting the progress of their student.	2/2

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

Evidence includes, but is not limited to:

Materials include comprehensive unit overviews that provide the background content knowledge and academic vocabulary necessary to effectively teach the concepts in the unit.

- The materials include background and content knowledge for the concepts in each unit. For example, in grade 6 *Fractions, Decimals, and Percents, Scope Overview, Teacher Guide*, the background knowledge paragraph begins with "Students in previous grades model fractions and decimals and locate fractions and decimals on number lines" to show how students make connections to previous knowledge. The *Teacher Guide* includes additional vertical alignment for each unit by adding future grade-level expectations.
- Each grade 6 unit provides supplementary activity handouts that include a list of options for teachers to meet the diverse needs of their students and a list of academic vocabulary in the *Teacher Toolbox, Essentials, Picture Vocabulary*.
- Each grade 6 unit includes a list of academic vocabulary terms. One example is grade 6 *Rational Numbers, Home, Content Support*.

Materials contain supports for families in both Spanish and English for each unit with suggestions on supporting the progress of their student.

- Each grade 6 unit provides a *Take-Home Letter* in English and Spanish under the "Home" tab on the platform. These letters explain and demonstrate the concepts students learn by communicating with verbal descriptions, diagrams, colorful models, and representations relative to the topic covered. The letter also includes academic vocabulary used in the unit and strategies and activities for families to use at home.
- The grade 6 *Teacher Toolbox* provides evidence of support and guidance for families. For example, the teacher sends the *Quantile Parent Guide* video and other content supports to families and caregivers.

Intentional Instructional Design

1.3	Lesson-Level Design	34/34
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.	30/30
1.3b	Materials include a lesson overview outlining the suggested timing for each lesson component.	1/1
1.3c	Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson.	2/2
1.3d	Materials include guidance on the effective use of lesson materials for extended practice (e.g., homework, extension, enrichment).	1/1

The 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. Materials include a lesson overview outlining the suggested timing for each lesson component. Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson. Materials include guidance on the effective use of lesson materials for extended practice (e.g., homework, extension, enrichment).

Evidence includes, but is not limited to:

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.

- In the grade 6 materials, each unit contains a *Teacher Guide* that provides objectives, tasks, materials lists, preparation needed, and procedure and facilitation points supported by tips that walk teachers through each lesson. Each lesson is split into the stages of *Engage, Explore, Explain, Elaborate, Evaluate, Intervention, and Acceleration*. The *Teacher Guide* covers each stage in one document promoting teacher planning.
- Grade 6 *Fractions, Decimals, and Percents* is an example of a comprehensive and detailed lesson plan. This lesson includes a list of all materials, supplies, and instructional activities; a bullet for teacher preparation; several demonstrations of the depth of knowledge (DOK) leveled questions; a section on procedure/facilitation points; a section of questions for the teacher to develop understanding; and materials for alignment to instructional supports and language development.
- The grade 6 *Suggested Scope Calendar* provides lesson plans for each unit in the materials. The plans outline daily objectives, questions, task materials, and instructional assessments to meet the lesson content and language standards. Clear language details student and teacher actions while providing detailed guidance on lesson internalization, content unwrapping,

content support, and methods for accessing students' prior knowledge.

Materials include a lesson overview outlining the suggested timing for each lesson component.

- Grade 6 *Scope Calendar Practice* provides suggested guidance for various lesson components. For example, in grade 6, *Fractions, Decimals, and Percents*, the suggested guidance shows how much time to spend on intervention, evaluation, and fact fluency for students at an approach level of understanding.
- The grade 6 *Fractions, Decimals, and Percents Teacher Guide* includes suggested timing for each portion of the lesson. For example, the *Teacher Guide* states, "allow two minutes of thinking time" and "allow 2–5 minutes of discussion."
- Grade 6 materials in the *Suggested Scope Calendar* provide daily and weekly structured lesson plan templates with daily posted lesson objectives, warm-up options (5–10 minutes), focus lesson options (20–30 minutes), and closure and formative assessment options.

Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson.

- Materials in grade 6 contain lists of teacher and student materials needed for each unit and activity. For example, grade 6, *Integer Operations, Explore 2*, "Subtract Integers using concrete models" includes a detailed outline of all teacher and student materials necessary for instruction delivery. Another example is grade 6, *Fractions, Decimals, and Percents, Explore 2, Teacher Guide* which gives a "preparation" section that guides teachers to ready listed materials for each part of the lesson.
- In grade 6, *Fractions, Decimals, and Percents, Explore 2*, there is an example of each material being listed as printed, reusable, and consumable. Materials specify for each item in parenthesis if they are per student, per pair, per group, or per class.

Materials include guidance on the effective use of lesson materials for extended practice (e.g., homework, extension, enrichment).

- Grade 6 materials include interactive skill review practice that spirals skills from earlier in the year and previous grade levels. The materials suggest ways to extend practice by applying new knowledge and connecting student learning to experiences beyond school. For example, in grade 6, *Fractions, Decimals, and Percents, Intervention*, students are assigned the interactive skill review to support mastery and retention.
- The *Elaborate* components design includes extensions and enrichments of grade 6 materials. The guidance for extensions and enrichments includes spiraled review, interactive practice, PhET, data science, and fluency builder. These are assigned to the student digitally, printed as handouts, or independent homework.

Progress Monitoring

2.1	Instructional Assessments	24/24
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.	12/12
2.1b	Materials include the definition and intended purpose for the types of instructional assessments included.	2/2
2.1c	Materials include teacher guidance to ensure consistent and accurate administration of instructional assessments.	2/2
2.1d	Diagnostic, formative, and summative assessments are aligned to the TEKS and objectives of the course, unit, or lesson.	6/6
2.1e	Instructional assessments include standards-aligned items at varying levels of complexity.	2/2

The 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. Materials include the definition and intended purpose for the types of instructional assessments included. Materials include teacher guidance to ensure consistent administration of instructional assessments. Materials include teacher guidance to ensure accurate administration of instructional assessments. Diagnostic, formative, and summative assessments are aligned to the TEKS and objectives of the course, unit, or lesson. Instructional assessments include standards-aligned items at varying levels of complexity.

Evidence includes, but is not limited to:

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.

- Grade 6 materials provide a *Package Assessment* in the assessment tab, including pre-tests, mid-tests, and post-tests. Each of these has a description of the intended use. For example, the *Post-Assessment* description reads, "The Post-Assessment will evaluate all grade-level standards and can be used as a predictor of student performance on state tests." The description informs the teacher that this test should be given to students as a summative assessment.
- Each unit in the grade 6 materials includes skill quizzes, standard-based assessments, technology-enhanced questions, checkups, exit tickets, projects, and performance tasks used for formative assessment. For example, grade 6, *Rational Numbers, Evaluate*, includes a *Mathematical Modeling Task*, and grade 6, *Rational Numbers, Acceleration* includes a *Would You Rather* activity. In the same unit, a choice board project is included under Acceleration. Each of these provides a different type of task for students to show understanding.

- In grade 6 materials, the *Assessment* tab allows teachers to create diagnostic, formative, and summative assessments with various tasks, including plotting on a number line, fill-in-the-blank, multiple choice, and short constructed response questions. These assessments are administered digitally or in print as well as in English or Spanish.

Materials include the definition and intended purpose for the types of instructional assessments included.

- In each unit of grade 6, the *Suggested Scope Calendar* defines diagnostic, formative, and summative assessments. Each assessment is listed, labeled D (diagnostic), F (formative), or S (summative), and then states a rationale for when and why to use the assessment. For example, the *Fractions, Decimals, and Percents Suggested Scope Calendar* lists *Accessing Prior Knowledge (D)* as an assessment option. It follows by describing "A brief probing activity to gauge students' prior knowledge before engaging in the content of the scope."
- The *Assessment* tab of the grade 6 materials provides pre-, mid-, and post-assessments with a definition to inform teachers of when and how to use each one. For example, under pre-assessment, the materials state "The intent of the assessment is to evaluate students on standards they have already learned. This means the Pre-Assessment will assess the standards from the previous grade level." This description defines diagnostic assessment and clarifies how it evaluates learning.
- Each of the grade 6 skill quizzes is a formative assessment meant to determine student fluency with key concepts. For example, the grade 6 *Rational Numbers Skills Quiz* is "a short, standards-based formative assessment."

Materials include teacher guidance to ensure consistent and accurate administration of instructional assessments.

- Each unit's assessments under "Evaluate" provide procedure and facilitation points, tips and tricks, and answer keys for accurate administration. For example, in grade 6, *Fractions, Decimals, and Percents, Evaluate, Standards-Based Assessment* under *Procedure and Facilitation Points*, the teacher directions state "1. Distribute the Student Handout to each student. 2. Prompt students to show what they know in completing the assessment. 3. Allow students to reflect on their performances using the Heat Map."
- Each unit's assessments and quizzes under "Evaluate" provide preparation instructions, procedure and facilitation points, tips and tricks, and answer keys for accurate administration. For example, the grade 6 *Fractions, Decimals, and Percents, Evaluate, Skills Quiz* directs "Once data has been collected, refer to the scaffolded instruction guide to differentiate instruction for each student."
- Each unit contains a *Suggested Scope Calendar* under the Home tab which guides teachers on consistent timing when administering assessments. For example, grade 7, *Rational Numbers, Home, Suggested Scope Calendar* on Day 16 directs teachers that *Standards-Based Assessment* should take 30 to 45 minutes, *Skills Quiz* should take 30 to 45 minutes,

and Mathematical Modeling Task should take 15 to 30 minutes.

Diagnostic, formative, and summative assessments are aligned to the TEKS and objectives of the course, unit, or lesson.

- Each unit in grade 6 contains an *Observation Checklist* that outlines the aligned TEKS for formative monitoring. A side-by-side table is provided in the observation checklist for both the student and teacher. It matches each skill or concept with its correlating standard and its subsequent description of how it is being covered. For example, the grade 6 *Fractions, Decimals, and Percents, Evaluate, Observation Checklist* shows the first standard of 6.4E describing skill or key concept, representing ratios and percents with concrete models, fractions, and decimals. The dropdown, "How was the skill or concept observed?" includes physical modeling, pictorial modeling, problem solving, discussion, and written explanation.
- Each unit in grade 6 includes a heat map that outlines the aligned TEKS for the skills quizzes (formative) and standards-based assessments (summative). The heat map contains a side-by-side table that matches each question with its corresponding standard for students and teachers to track progress. For example, the grade 6 *Rational Numbers, Evaluate, Heat Map* gives a color-coded key that differentiates miscalculation, explanation, or misconception errors. The chart then provides the standards associated with the unit content and the questions that align with that standard.
- Grade 6 materials provide *Benchmark Assessments* in which the question details provide the TEKS correlation for each assessment item, the answer key, and the topic and unit to which the question aligns with the instructional materials. For example, when *Details* is selected on Question 1 of the *STEMscopes Texas Math Grade 6 Pre-Assessment*, the *Standards* section reads, "*Texas Math > Supporting Standard > 5.2C, STEMscopes Texas Math Review > Texas Essential Knowledge and Skills for Mathematics > 5.2C.*"

Instructional assessments include standards-aligned items at varying levels of complexity.

- In each unit of grade 6 materials, the *Evaluate* section provides answer keys, listing the complexity of each question based on the depth of knowledge (DOK). For example, the grade 6 *Rational Numbers, Evaluate, Standards-Based Assessment, Answer Key* indicates that question five is DOK 2. These labels show varying levels of complexity.
- The grade 6 "Benchmark Assessments" provide questions of varying complexity, including dropdown, fill-in, drag-and-drop, and graphing. For example, "STEMscopes Texas Math Grade 6 Post-Assessment" contains 18 multiple choice, ten fill-in-the-blank, and two Griddable questions.

Progress Monitoring

2.2	Data Analysis and Progress Monitoring	4/4
2.2a	Instructional assessments and scoring information provide guidance for interpreting and responding to student performance.	2/2
2.2b	Materials provide guidance for the use of included tasks and activities to respond to student trends in performance on assessments.	1/1
2.2c	Materials include tools for students to track their own progress and growth.	1/1

The instructional assessments and scoring information provide guidance for interpreting and responding to student performance. Materials provide guidance for the use of included tasks and activities to respond to student trends in performance on assessments. Materials include tools for students to track their own progress and growth.

Evidence includes, but is not limited to:

Instructional assessments and scoring information provide guidance for interpreting and responding to student performance.

- Every unit in grade 6 includes a *Scaffolded Instruction Guide*, which guides teachers in interpreting and responding to specific standards. The guide also provides details for interpreting and responding to overall percentile ranges from a diagnostic assessment. For example, *Fractions, Decimals, and Percents, Home, Scaffolded Instruction Guide* shows a table with percentile range categories corresponding to previous grade Level remediation, grade level with supports, grade level, and extending grade level.
- Each grade 6 unit provides a *Teacher Guide* that shows evidence of teacher planning for responding to student performance. For example, the *Real Numbers, Scope Overview, Teacher Guide* provides an assessment planner that includes a set of questions teachers ask to ensure mastery of the concept after intervention. The instructions are, "Use this template to decide how to assess your students for concept mastery. Depending on the assessment format, teachers can identify prompts and intended responses to measure student mastery of the expectation."
- In the *Evaluate* section of each grade 6 unit, a heat map is provided to guide teachers in responding to student performance after assessments. Based on the focused standard, the heat maps offer feedback on each student's specific areas of strength and weakness through color coding, which visually indicates issues of miscalculation, lack of explanation, and misconception.
- The heat map offers feedback on specific areas of strength and weakness for each student based on the focused standard. Color coding in the heat map allows a visual indicator for miscalculation issues, lack of explanation, and misconception.

Materials provide guidance for the use of included tasks and activities to respond to student trends in performance on assessments.

- Each unit in the grade 6 materials contains a *Skill Review, and Practice* in the *Intervention* section. This section outlines specific actions for teachers and students to use quick checks, reviews, small groups, and independent practice for students based on scores for each standard. For example, *Fractions, Decimals, and Percents, Intervention, Skill Review, and Practice* shows procedure and facilitation points such as "3. Use the skill rubric at the end of the Quick Check to identify which students require additional help on the skills." and "5. Each student should complete the Review as an intervention or an individual activity. Optionally, pull students into a small group to work on review skills."
- Every unit in grade 6 includes a *Scaffolded Instruction Guide*, which guides teachers to interpret and respond to specific grade-level standards. The guide also provides details for interpretation and response to overall percentile ranges from a diagnostic assessment. For example, *Fractions, Decimals, and Percents, Home, Scaffolded Instruction Guide* shows a table broken down into four categories with descriptions and links on providing an appropriate response. The *Previous Grade Level Remediation* category includes small group interventions and fluency builders linked to the lesson.
- The *Differentiation Pathways* guide suggests strategies for differentiation and small groups. For example, the grade 6 *Differentiation Pathways* guide provides a table with elements for assessing mastering levels and then includes resources for students who meet grade level, approach grade level, or perform below grade level.

Materials include tools for students to track their own progress and growth.

- Each grade 6 unit provides an *Observation Checklist* for students to track their progress by standard. The checklist is a student-friendly document with each standard including an "I can" statement, a "How could you show you know this?" checklist, and a "How would you rate yourself?" scale with icons. For example, *the Fractions, Decimals, and Percents, Evaluate, Observation Checklist* begins with the 6.4E statement, "I can represent ratios and percents with concrete models, fractions, and decimals."
- Every unit in grade 6 provides a heat map in the *Evaluate* section that helps students align each skill assessment question to the corresponding state standard and reflect on their confidence, challenges, errors, and future avoidance of errors. For example, *in Fractions, Decimals, and Percents*, the *Evaluate* heat map begins with the directions, "Refer to your answers on the Skills Quiz. Color the correct question boxes green, and color the incorrect question boxes according to the following key."
- The *Teacher Toolbox* for grade 6 includes a *Goal-Setting Form* and a lesson plan for teachers to help students set and track goals. The handout consists of "I can" statements that students fill out and then checkmark when the goal is met. Prompts are provided for setting small benchmark goals as well as long-term goals.

Supports for All Learners

3.1	Differentiation and Scaffolds	8/8
3.1a	Materials include teacher guidance for differentiated instruction, activities, and/or paired (scaffolded) lessons for students who have not yet reached proficiency on grade-level content and skills.	3/3
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)	2/2
3.1c	Materials include teacher guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skills.	3/3

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

Evidence includes, but is not limited to:

Materials include teacher guidance for differentiated instruction, activities, and/or paired (scaffolded) lessons for students who have not yet reached proficiency on grade-level content and skills.

- Each unit in grade 6 has a "Scaffolded Instruction Guide" that aids teachers in providing interventions and differentiated instruction for students who have not met proficiency. For example, in "Fractions, Decimals, and Percents" the guide is broken into four categories: Previous Grade Level Remediation, Grade Level with Supports, Grade Level, and Extending Grade Level. Each category has a pair or group of scaffolded lessons and activities with links provided.
- The "Teacher Toolbox" contains an "Intervention" tab that provides teacher guidance for using a variety of differentiated instruction modalities such as visuals and manipulatives to support those who have yet to reach proficiency in grade-level skills. As a table, this guide includes strategies and activities to be utilized when students need additional support, e.g., utilizing manipulatives, labeling objects, physical demonstrations, peer talk, and play-based learning. For example, next to "Modifying Instructions," the guide states "Include concrete examples in each set of instructions on the assessment to assist students' understanding of expectations."
- The Teacher Toolbox includes a "Differentiation Pathway Guide" in the lesson planning resources. The guide provides scaffolded lessons within the content to address different proficiency levels of Masters, Meets, and Approaching. For example, under "Approaching," the guide states "If students have some knowledge of the content, then they can gain understanding of the important concepts using the following elements."

Materials include pre-teaching or embedded supports for unfamiliar vocabulary and references in text (e.g., figurative language, idioms, academic language). (T/S)

- Each unit in the grade 6 materials includes "Language Connections," "Interactive Vocabulary," and "Picture Vocabulary" lessons in the "Explain" section that provides pre-teaching vocabulary using student-friendly definitions. For example, in Fractions, Decimals, and Percents under "Explain, Picture Vocabulary" there are procedure and facilitation points and tips and tricks. There is also a visual slideshow for teachers to present to the class that includes guiding questions such as "How can you connect this word to your work?" and visual vocabulary cards for students to add to their notebooks.
- Each unit in the grade 6 materials includes a Content Unwrapped in the "Home" section that details pre-teaching guidance and embedded supports for defining academic language that may be unfamiliar to students. This section identifies both key verbs and nouns that students need to know. For example, the teacher directions for Fractions, Decimals, and Percents, Content Unwrapped ask "What should students be doing? find: to discover or solve; generate: to produce."
- In each "Explore" section of each unit in grade 6, there are "Instructional Supports" and "Language Supports" embedded to assist teachers in teaching vocabulary. For example, the materials in Fractions, Decimals, and Percents, Explore 2 state "if students need additional support with conceptualizing percentages greater than 100, ask students what their favorite candy bar is, and then use this metaphor to explain percentages greater than 100. For example, if 1 uneaten candy bar is 100, how much is 2 uneaten candy bars?"

Materials include teacher guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skills.

- Each unit provides a "Scaffolded Instructional Guide" that gives suggestions and links to activities based on assessment data that is broken into four categories including "Grade Level" and "Extending Grade Level." For example, the materials in "Integer Operations, Scaffolded Instructional Guide" provide teacher guidance for differentiated instruction for students who have demonstrated proficiency in grade-level content for standard 6.3d specifically with the activities Picture Vocabulary, Anchor Chart, Interactive Vocabulary, and Interactive Notebook.
- Each unit in grade 6 culminates with an enrichment activity for students who have shown proficiency in grade-level skills. These include a project-based learning activity, research project, and creative project that synthesizes content and student learning. For example, the Acceleration tab in Grade 6, Integer Operations has "Would You Rather" and "Choice Board" activities that align with the concepts of the unit. The Would You Rather activity states it is "an enriching activity for students to use mathematical reasoning and creativity to justify an answer."
- Throughout the unit activities, like the ones in the Explore section, multiple instructional supports include teacher directions for extension when students show proficiency with grade-level concepts. These notes include differentiated extension questions and/or activities. For example, in "Algebraic Expressions, Explore 1," teacher notes include that "as an extension, challenge students to create their own problem, expression, and model."

Supports for All Learners

3.2	Instructional Methods	13/13
3.2a	Materials include prompts and guidance to support the teacher in modeling, explaining, and communicating the concept(s) to be learned explicitly (directly).	6/6
3.2b	Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches.	4/4
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

The materials include prompts and guidance to support the teacher in modeling, explaining, and communicating the concept(s) to be learned explicitly (directly). Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches. 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.

Evidence includes, but is not limited to:

Materials include prompts and guidance to support the teacher in modeling, explaining, and communicating the concept(s) to be learned explicitly (directly).

- Each unit in the materials includes a *Teacher Guide* that includes step-by-step prompts and guidance to support teachers when giving directions, introducing topics, and addressing misconceptions. Under *Teacher Guide* in the "Home" section under Scope Overview in each unit, the materials provide prompts and guidance for each concept. For example, "Fractions, Decimals, and Percents, Content Support" guides teachers to use concrete models to teach fractions and percents equivalence. Examples are given using colored counters and hundreds grids with the verbiage of fractions written in red font. The fractions and decimals for each ratio are also given below the models.
- The *Teacher Guide* includes guidance for Description, Materials, Preparation, Procedure and Facilitation Points, and Facilitation Tips. The *Teacher Guide* also provides Pre-Explore, Post-Explore, Standards of Mathematical Process, and instructions on how to use interactive activities as appropriate for each lesson. For example, in the Engage portion of the "Fractions, Decimals, and Percents, Scope Overview, Teacher Guide" facilitation guidance is given to "walk around and listen to student discussions." Teachers are also encouraged to use prompting questions provided on the Engage activity page to help facilitate the discussions.
- Each activity within the materials includes prompts and guided instructions labeled as "Procedure and Facilitation Points" to support the teacher in communicating, explaining, and modeling the concepts directly and explicitly. These also include Depth-of-Knowledge (DOK) questions and answers that teachers should expect, and question stems to communicate and model the concepts. For example, the "Rational Numbers, Explore 1" procedure and facilitation

points state that "Students should understand that each colored ring on the archery target represents a set of numbers...After students have labeled the rings on their Rational Number Targets, challenge them to place each number from the box on their Student Journals into the circle of the set or subset in which it belongs."

Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches.

- The materials provide recommendations using a variety of instructional approaches through the 5E Model which is broken down and explained in the Teacher Toolbox. Each lesson is separated by Engage, Explore, Explain, Elaborate, and Evaluate and each one has different instructional approaches. For example, in "Rational Numbers, Engage," students go through a hands-on activity that includes a connection to background knowledge with an oral facilitation activity. In the "Rational Numbers, Explore," students are provided with group activities, writing activities, and oral facilitation activities.
- Materials include teacher guidance and recommendations for effective lesson delivery and for facilitating tasks that allow active participation, exploration, and discovery through "Preparation" and "Procedure and Facilitation Points." For example, in "Integer Operations, Explore 5," the preparation section states "plan to have students work in groups to model using two-color counters on their integer operations work mat...[Have students] share their experiences using counters for multiplication and division." With this guidance, the teacher is also provided Depth-of-Knowledge leveled questions to facilitate the discussion.
- Materials include teacher guidance that employs a variety of instructional approaches for effective lesson delivery including Math Talks, Turn-and-Talk, Whole-Group Discussions, and Mathematical Modeling Tasks. For example, in "Teacher Toolbox, Structured Conversations," various instructional approaches to intentional discourse include routine use of activities such as Four Corners, Gallery Walk, Pair Square Share, Walk Talk Decide, and Around The Room.

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.

- The "Suggested Scope Calendar" and "Scope Overview, Teacher Guide" in the "Home" section of each unit in the materials show headings and labels that aid teachers in distinguishing between different types of practice (guided, independent, and collaborative) within the lesson structure. For example, "Integer Operations, Suggested Scope Calendar" details lesson objectives, warm-up activities, a focus lesson, independent work, and student homework options. The "Equivalent Numerical Expressions, Scope Overview, Teacher Guide" shows directions for a group activity in the Accessing Prior Knowledge section, directions for class discussion in the Explore section, and directions for independent practice in the Skill Review and Practice section.
- The Scaffolded Instruction Guide in each unit provides a variety of options and resources for students to practice and apply the concepts learned including whole group, small group, individual, partner, and project-based activities. For example, "Integer Operations, Scaffolded

Instruction Guide" lists activities for all students in Hooks, Explores, Show What You Know, and Skills Quiz. Then the guide shows activities for smaller differentiated groups of students to work in small groups, partners, or individually based on the need for previous grade level remediation, grade level instruction with supports, grade level instruction without supports, and extending grade level activities.

- Each lesson within the unit shows a variety of teacher guidance for effective implementation with multiple types of practice. For example, in "Fractions, Decimals, and Percents, Engage," teacher guidance is to "Ask students to share with shoulder partners how they marked their sheets and why." In the same unit "Explore 1," teacher guidance is to "plan to divide the class into groups of 2–4 students...explain to students that they will be working with their groups to read each Rock Wall Scenario Card to determine the positive and negative numbers where the rock wall stones will be placed." In the Intervention section of the unit, the teacher guidance indicates using the skill review and practice while also ensuring students independently complete the Quick Check.

Supports for All Learners

3.3	Supports for Emergent Bilingual Students	11/11
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.	2/2
3.3b	Materials include implementation guidance to support teachers in effectively using the materials in state-approved bilingual/ESL programs.	1/1
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.	8/8
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.	Not scored

The 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. Materials include implementation guidance to support teachers in effectively using the materials in state-approved bilingual/ESL programs. 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.

Evidence includes, but is not limited to:

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.

- The materials provide linguistic accommodations for Emergent Bilingual students in developing academic vocabulary by providing sentence stems that support both oral and written discourse and are tailored to different proficiency levels (beginner, intermediate, and advanced) by domain. For example, in the Multilingual Learners section of the Teacher Toolbox, teachers are told "Language acquisition...process is continuous and open-ended and it differs across language domains (listening, speaking, reading, and writing) depending on factors such as context or situation." Additionally, the Proficiency Levels by Domain section provides an overview of how students are applying language as well as methods and tools designed to engage students in using increasingly more academic language.
- The Explore activities in every unit include Language Supports with guidance on supporting students at different levels of listening, speaking, reading, and writing proficiency. For example, "Triangle Properties, Explore 1" shows the following English Language Proficiency

Standards are supported: 1.C, 2.C, 3.ABCDFH, 4.DF. Guidance includes "providing students with illustrations or examples of words and phrases such as triangle inequality theorem will help them model correct pronunciation for each phrase." It also includes examples of sentence frames and word banks such as "A triangle has . I know is a triangle because ."

- Grade 6 materials emphasize ways in which the teacher builds academic vocabulary as the unit progresses, such as anchor charts, cognate charts, image collages with labels, and vocabulary walls. In "Triangle Properties, Explain," there is a language connections section that supports linguistic and cultural background knowledge for connections to vocabulary at various proficiency levels. The guidance shows teachers how to help students work in partners for language connection and "then watch for students who have difficulty creating a plan or who circle words in the bank."

Materials include implementation guidance to support teachers in effectively using the materials in state-approved bilingual/ESL programs.

- The Teacher Toolbox has a Multilingual Learners section that provides a list of the resources given throughout the instructional materials as well as descriptions to guide teachers as they internalize lessons with the language tools. The resources listed are Proficiency Levels by Domain, Working on Words, Sentence Stems/Frames, Integrated Accessibility Features, Take-Home Letters, Tiered Supports, Language Connection, Virtual Manipulatives, Visual Glossary/Picture Vocabulary, Virtual Learning Videos, Skills Quiz, My Math Thoughts/Math Story, Problem-Based Task/Mathematical Modeling Task, Daily Numeracy, Data Science, Structured Conversation Routines, and Vocabulary Strategies.
- The Explain section in every unit provides Language Connections that support students in bilingual and ESL programs. For example, in "Algebraic Expressions, Explain, Language Connections," teacher directions show how to facilitate the activity with cues about using "gestures, pointing at objects, and visuals as appropriate." There are further prompts, sentence stems, and directions for modeling broken down into the different proficiency levels. Student handouts with teacher answer keys are provided in both English and Spanish at each proficiency level.

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.

- The Multilingual Learners section of the Teacher Toolbox provides Linguistic Diversity that facilitates oral discourse, builds background knowledge, builds cross-linguistic connections, and shows embedded guidance on how to use each of the strategies with emergent bilingual students. For example, under "Working on Words," the description reads "This open-ended activity allows students to take agency and accountability for their growing vocabulary. This activity also encourages making relevant, personal connections to new terms in different ways, such as identifying cognates." Furthermore, under "Integrated Accessibility Features," the description reads "Across the curriculum, we have embedded tools that allow students to

listen to text being read aloud, find the definition of words in the moment, make notes, and highlight words and phrases."

- The Explain section of each unit contains a page of resources for Language Connections for increasing language comprehension in emergent bilingual students. Handouts in English and Spanish are provided along with answer keys for these levels of language acquisition: beginner, intermediate, and advanced. The page includes a description, materials, preparation instructions, procedure and facilitation points, and detailed dialogue and questions for each leveled handout.
- Grade 6 materials provide various strategies for building vocabulary, comprehension, background knowledge, language proficiency, and spirals previously learned vocabulary and concepts to promote retention through oral and written discourse. For example, the "Launch into Grade 6, Explain" provides several vocabulary games such as "What's on my Back," "Graffiti Art," "Bingo," and "Drawing Game" that promote both oral and written discourse for emergent bilingual students.

If designed for dual language immersion (DLI) programs, materials include resources that outline opportunities to address metalinguistic transfer from English to the partner language.

- In the Teacher Toolbox, the Linguistic Diversity section provides opportunities to address metalinguistic transfer from English to Spanish. Resources include "Sentence Stems" in English and Spanish, "Working on Words" in English and Spanish, and "Proficiency Levels by Domain." This section also lists all of the ways the materials integrate research-based strategies and tools into the materials to support linguistically diverse learners. The list, which includes Language Connections, Virtual Manipulatives, Visual Glossary/Picture Vocabulary, and Virtual Learning Videos, also has a description of how each of the strategies support the student. For example, the description next to "My Math Thoughts/Math Story" reads "These literary elements give students the opportunity to practice reading and writing about math. Students can apply reading strategies to aid with comprehension and practice not just math vocabulary, but situation vocabulary as well."
- The Explain section of each unit contains Language Connections with Spanish language connections for beginner, intermediate, and advanced proficiency levels. The Language Connection states that "students have the opportunity to use their linguistic and cultural background knowledge to support connections to new skills, vocabulary, and concepts." The side-by-side language connection gives opportunities to address metalinguistic transfer from English to Spanish. For example, in "Integer Operations, Explain, Language Connections," the materials show how to add two negative integers using steps in Spanish and images for transfer to English.
- The Implementation Guide in the Teacher Toolbox as well as the materials in each unit provide visuals and suggested linguistic scaffolds for teachers to meet the needs of multilingual learners at all proficiency levels. Resources, including Take-Home Letter, Anchor Charts, Math Stories, and Student Journal, are translated into Spanish and transadapted as appropriate. This allows dual language educators the tools for side-by-side comparison, cross-linguistic bridging, and linguistic analysis opportunities between English and Spanish.

Depth and Coherence of Key Concepts

4.1	Depth of Key Concepts	3/3
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.	1/1
4.1b	Questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards.	2/2

The 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. Questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards.

Evidence includes, but is not limited to:

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.

- The materials provide opportunities for students to identify concepts and solve real-world, relevant tasks and problem-solving situations that align to the TEKS, including concrete representations. For example, in "Area and Volume, Elaborate," the PhET Challenge provides given areas and/or perimeters and students are required to construct irregular shapes to meet those demands. In this simulation, students work backward for a given solution and build concrete models which demonstrates depth of understanding aligned to the TEKS.
- The materials include a variety of assessments that require students to demonstrate learning at a depth of understanding aligned with the TEKS. For example, as an assessment, the "Fractions, Decimals, and Percents, Explain, Show What you Know: Part 4" gives students the original price of an item, a discount percent, and asks students to determine the sale price. Students then enter the sale price into a table before explaining the selected strategy in an open-ended format that includes both models and words. Next, students use information to determine the discount percent which demonstrates students' understanding aligned with TEKS 6.5b.

Questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards.

- From "Engage" to "Acceleration," materials demonstrate questions progressively increasing in rigor and complexity which leads to grade-level proficiency throughout the lesson. For example, in "Integer Operations," increasing levels of Depth-of-Knowledge (DOK) questions are provided for teachers throughout these activities and lessons.
- Tasks in materials increase in rigor and complexity as the learning scaffolds concrete understanding into representational and abstract thinking. For example, in "Fractions,

Decimals, and Percents," students begin the unit by recalling what they know about fractions and decimals from grade 5. With progressive increases in both rigor and complexity, "Explore" has students work through consecutive tasks, including identifying percents using hundreds grids; using benchmark fractions to generate conversions between fractions decimals, and percents; and applying learning to discounts and sales prices. In "Elaborate," students demonstrate understanding of these concepts before using "Evaluate" to demonstrate their learning with the Standards-Based Assessment and Skills Quiz, which both include varying response types.

- In every unit, the materials provide DOK level 1–4 questions to increase rigor and complexity. Skills Quizzes and Math Chats include facilitation directions with level 1 recall questions focusing on facts, details, definitions, and procedures with one correct answer. Standards-Based Assessments, Show What You Know activities, and Interactive Practice include level 2 skill/concept questions where students apply skills and concepts by answering *how* and *why* questions with one correct answer. Explore activities and Anchor Charts provide level 3 strategic-thinking questions which require reasoning, planning, and defending conclusion and allow for multiple answers and approaches. Choice Boards and Mathematical Modeling Tasks contain level 4 extended-thinking questions that emphasize real-world applications and new situations with complex reasoning, planning, and multi-step processes required. These questions are embedded throughout the lesson and found in the *Teacher Guide* in the "Home" section under Scope Overview in each unit. For example, "Rational Numbers, Acceleration, Would You Rather" contains a level 4 prompt for students to "use mathematical reasoning and creativity to justify" their answer to the provided Would You Rather question.

Depth and Coherence of Key Concepts

4.2	Coherence of Key Concepts	12/12
4.2a	Materials demonstrate coherence across courses/grade bands through a logically sequenced and connected scope and sequence.	2/2
4.2b	Materials demonstrate coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts.	3/3
4.2c	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.	3/3
4.2d	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.	4/4

The materials demonstrate coherence across courses/grade bands through a logically sequenced and connected scope and sequence. Materials demonstrate coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts. 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. 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.

Evidence includes, but is not limited to:

Materials demonstrate coherence across courses/grade bands through a logically sequenced and connected scope and sequence.

- The Course Rationale in the Teacher Toolbox shows coherence of knowledge and skills across the course through a logically sequenced Scope Order. For example, the grade 6 Course Rationale states that the order of the units "build[s] on previous concepts, ensuring a coherent progression that enhances students' understanding and application of mathematical principles." Additionally, the Course Rationale provides a table to both demonstrate that the order of concepts and TEKS covered are included within the instructional materials and that connecting TEKS are revisited and spiraled into new content.
- In each unit, the "Content Unwrapped in the "Home"" section provides a vertical alignment chart that connects the progression of knowledge and skills across grade bands 5–8. For example, "Area and Volume, Content Unwrapped" states that students represent and solve problems related to models that demonstrate relationships between perimeter, area, and volume in grade 5; model area formulas of parallelograms, trapezoids, and triangles in grade 6; and finally build with skills related to volume in grade 7 and grade 8.

Materials demonstrate coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts.

- The order of units in grade 6 materials demonstrates a coherent progression of patterns in mathematics. For example, the grade 6 Course Rationale in the Teacher Toolbox explains how the Coordinate Planes unit lays the groundwork for understanding the Functions and Linear Equations units by connecting the patterns and big ideas to graphing in all four quadrants of the coordinate plane.
- The materials provide an explicit connection between big ideas in mathematics through the "Content Support in the "Home"" section in each unit, which provides background knowledge for big ideas, addresses misconceptions, and highlights and ensures proper connections with important academic vocabulary. For example, "Coordinate Planes, Content Support" shows how students make connections between number lines and the coordinate plane which later extends to linear relationships in future units.
- The Content Unwrapped in the "Home" section provides evidence of coherence across each unit by connecting relationships between mathematical concepts. For example, "Triangle Properties, Content Unwrapped" states that students will connect the relationships between attributes and properties of triangles to solve problems.

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.

- The materials provide connections to previous grade levels in the Content Support in the "Home" section for each unit. For example, "Coordinate Planes, Content Support" states that in grade 5, students previously encountered the coordinate plane and learned about the x-axis and y-axis. Students worked exclusively in the first quadrant and as a result only graphed ordered pairs composed of positive values. Now, students graph ordered pairs with positive and negative rational numbers in all four quadrants.
- The materials include conceptual, pictorial, and abstract representations supporting the content and language applicable to previous grade levels. For example, "Area and Volume, Explain, Picture Vocabulary" shows images that scaffold previous grade levels and also include current grade-level vocabulary. The area picture card contains information learned as early as grade 4 (rectangles) but also continues with current grade-level learning (trapezoids, parallelograms, triangles, and circles).
- The Content Support in the "Home" section of each unit connects content and language in the current grade level to future grade levels. For example, "Integer Operations, Content Support" provides vocabulary and TEKS from grade 5 through grade 7, allowing teachers to aid students in creating learning connections with academic language.

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.

- The Content Unwrapped in the "Home" section of each unit shows a coherent progression of concepts and procedures from prior grade levels to new mathematical knowledge and skills. For example, "Algebraic Expressions, Content Unwrapped" contains background knowledge that connects grade 5 expressions to equations with whole numbers, decimals, and fractions in grade 6. Additionally, the background knowledge further connects procedures for solving multi-step problems with order of operations in grade 5 to solving equations with a variable in grade 6.
- Materials have a coherent progression of concepts and procedures from the current grade level, including discovering, finding, and solving. For example, the Area and Volume unit contains 4 "Explores." In Explore 1, students decompose various figures to make connections to area formulas; in Explore 2, students solve real-world problems involving area; in Explore 3, students solve area problems to develop and unfold the volume of rectangular prisms; and in Explore 4, students solve for the area and volume of composite figures in real-world scenarios.

Depth and Coherence of Key Concepts

4.3	Spaced and Interleaved Practice	8/8
4.3a	Materials provide spaced retrieval opportunities with previously learned skills and concepts across lessons and units.	4/4
4.3b	Materials provide interleaved practice opportunities with previously learned skills and concepts across lessons and units.	4/4

The materials provide spaced retrieval opportunities with previously learned skills and concepts across lessons and units. Materials provide interleaved practice opportunities with previously learned skills and concepts across lessons and units.

Evidence includes, but is not limited to:

Materials provide spaced retrieval opportunities with previously learned skills and concepts across lessons and units.

- The materials use a "5E + AI" model (Engage, Explore, Explain, Elaborate, Evaluate, Intervention, Acceleration) which intentionally spaces retrieval opportunities for skills and concepts throughout the lessons of a unit. Planned intervention allows for flexible retrieval opportunities during or between lessons in that unit. For example, the "Algebraic Expressions, Intervention" tab provides Quick Check, Review, Checkup, and four Interactive Skill Reviews, which reinforce skills and concepts learned throughout the unit.
- The materials provide spaced retrieval for previously learned skills across units and throughout the course with Mathematical Fluency. For example, in "Mathematical Fluency: Operations with Decimals," "Adding, Hundredths" presents students with a maze activity that requires navigating turns by adding decimals repeatedly.
- The materials for grade 6 include Benchmark Assessments that provide opportunities for retrieval of previously learned concepts across units. This section includes assessments for the beginning, middle, and end of the course which allow students to retrieve prior learning while also assessing recent learning.

Materials provide interleaved practice opportunities with previously learned skills and concepts across lessons and units.

- Lessons within grade 6 include concept and skills practice that require students to select and use diverse strategies, promoting the most efficient strategy rather than relying on a single strategy for every problem. For example, in the "Intervention, Armadillo Crossing" lesson of the Area and Volume unit, students play interactive games to practice solving for both area and perimeter in the same problems with different geometric figures.
- The materials include opportunities for students to select and use diverse strategies, promoting the most efficient strategy rather than relying on a single strategy for every problem.

For example, in "Ratios, Rates, and Unit Rates" students revisit and apply more than one way to describe and represent ratios and percents using concepts and skills involving concrete models, fractions, and decimals. The understanding of concepts and skills is reiterated with increasing complexity as students apply that knowledge to real-world problems and generate equivalent forms of fractions, decimals, and ratios.

- The materials provide opportunities for frequent and short interleaved practice of concepts and skills across units through Spiraled Review. For example, in "Area and Volume," the spiraled review states that "students will review concepts and material from previous math classes and units to help support their work in the current unit." This review engages students in the practice of proportional reasoning from prior units.

Balance of Conceptual and Procedural Understanding

5.1	Development of Conceptual Understanding	18/18
5.1a	Questions and tasks require students to interpret, analyze, and evaluate a variety of models and representations for mathematical concepts and situations.	12/12
5.1b	Questions and tasks require students to create a variety of models to represent mathematical situations.	2/2
5.1c	Questions and tasks provide opportunities for students to apply conceptual understanding to new problem situations and contexts.	4/4

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

Evidence includes, but is not limited to:

Questions and tasks require students to interpret, analyze, and evaluate a variety of models and representations for mathematical concepts and situations.

- The materials provide questions that require students to use various models and representations to interpret, analyze, and evaluate mathematical concepts and situations. For example, "Grade 6, Integer Operations, Explain, Show What You Know" instructs students to use counters to answer questions involving interpreting, analyzing, and evaluating such as, "What integers represent how much he owes his siblings?" The activity also prompts students to draw models, write expressions, and solve problems to create solutions to a given question.
- "Grade 6, Equations and Inequalities, Home, Content Support" demonstrates how teachers guide students to solve equations and inequalities by first using concrete models to represent the equations. Additionally, students must use models to interpret, analyze, and evaluate real-world situations before graphing solutions on a number line.
- "Grade 6, Integer Operations" is divided into six categories for student exploration: addition using concrete models, subtraction using concrete models, addition and subtraction using number lines, multiplication with counters, division with counters, and multiplication and division using number lines. Tasks assigned to students in these sections utilize counters and number lines to interpret, analyze, and evaluate area, volume, and representations of 2D and 3D figures.

Questions and tasks require students to create a variety of models to represent mathematical situations.

- Questions require students to create various models to represent mathematical situations. For example, "Grade 6, Ratios, Rates, and Unit Rates, Explore 2" includes a "Student Journal" which asks students to create a table and a graph to estimate the ratio of the solution.
- "Grade 6, Area and Volume, Elaborate, PhET" digital activity "Area Builder" gives students the task of building irregular shapes and calculating the area. "Building a Community Pool" is another task in which students choose shapes and label dimensions to build a pool before calculating its area and volume. In these tasks, students are using a variety of models to represent mathematical situations.
- The "Grade 6, Fractions, Decimals, and Percents, Acceleration, Would You Rather" activity presents a mathematical situation involving shoe stores. Students are required to "use pictorial models to represent the problem" that involves two stores with different starting prices and different discount scenarios. The models then aid students in constructing an argument for the best purchasing option.

Questions and tasks provide opportunities for students to apply conceptual understanding to new problem situations and contexts.

- The materials include questions that prompt students to apply conceptual understanding to new situations. For example, "Grade 6, Measures of Data, Explore 1" provides depth of knowledge questions like, "How does adding or taking away a data point affect the balance point, or mean, of the data?" and "How can you identify the shape of the data distribution?" Throughout the lesson, the activity continues to change situations and contexts to ensure students apply understanding in different ways.
- The Elaborate and Evaluate sections of each unit include tasks with varied situations and contexts for students to apply conceptual understanding. For example, "Grade 6, Integer Operations, Elaborate" contains Spiraled Review which presents a diagram of parts of a boat with a narrative about Matteo's sailboat adventure. Students are asked to identify parts of the diagram from the situation, make adjustments to create a different height, analyze and classify numbers used, and represent different parts of the adventure with other mathematical models. "Grade 6, Integer Operations, Evaluate, Mathematical Modeling Task" presents a scenario in which students determine a shopping list to satisfy party needs. Students must maintain a budget using integer operations while choosing different products to satisfy party needs.

Balance of Conceptual and Procedural Understanding

5.2	Development of Fluency	12/12
5.2a	Materials provide tasks that are designed to build student automaticity and fluency necessary to complete grade-level tasks.	2/2
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.	3/3
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.	6/6
5.2d	Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches.	1/1

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

Evidence includes, but is not limited to:

Materials provide tasks that are designed to build student automaticity and fluency necessary to complete grade-level tasks.

- Grade 6 materials include multiple Daily Numeracy tasks designed to build student automaticity needed for completing grade-level tasks. This daily practice, especially when combined with Spiraled Review activities, prompts students to recall content skills while building automaticity.
- Each unit contains student exercises that target specific skills and build fluency necessary to complete grade-level tasks. For example, "Integer Operations, Elaborate" provides two fluency builders. The concentration games are tasks designed to play with a partner and rehearse target skills in the unit. In addition, "Fractions, Decimals, and Percents, Elaborate" provides two partner-based fluency builder competitions involving multiple questions on fractions, decimals, and percents.
- Grade 6 materials provide three Mathematical Fluency sections (fractions, decimals, and integers) that offer students tasks to engage with fact fluency. The tasks reinforce strategies through discussions and visual models while allowing students to gain automaticity and fluency through games and everyday applications. Student and teacher tracking documents allow teachers to monitor and students to take ownership of their fluency.

Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures within the lesson and/or throughout a unit.

- The materials include activities that require manipulatives for hands-on exploration of concepts which develops procedural skills alongside efficient mathematical procedures. For example, "Algebraic Expressions, Intervention, Interactive Skill Review" allows students to play interactive games to practice math skills that include previous grade-level standards vertically aligning with the current grade-level unit. This also aids students in interleaved practice and applying procedures efficiently.
- Opportunities are provided for students to apply flexible mathematical procedures throughout a unit. For example, the "Grade 6, Fractions, Decimals, and Percents" unit teaches students to use hundreds grids, benchmark fractions, and strip diagrams to solve problems. When given scenarios involving percents, students are encouraged to choose the method that best demonstrates their understanding.
- Within a lesson, students practice accurate mathematical procedures. For example, "Fractions, Decimals, and Percents, Explain, Show What You Know" guides teachers to allow students to confer with their previous models of hundreds grids, benchmark fractions, and strip diagrams used during the Explore lessons. The flexible use of these models allows students to check their procedural skills of converting between fractions, decimals, and percents for accuracy.

Materials provide opportunities for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy within the lesson and throughout a unit.

- Within lessons and throughout each unit, grade 6 materials provide strategic questions for teachers that prompt students to consider and evaluate alternate strategies and solutions as a means to think critically and later apply procedures to different situations. For example, "Area and Volume, Explore, Explore 1" contains depth of knowledge leveled questions that evaluate procedures, processes, and solutions like, "How are solutions determined when solving problems involving area and volume?" and "What other 2-D figures can be used to decompose a trapezoid?"
- Within the lessons and throughout the units, Depth of Knowledge questions for teachers prompt students to evaluate procedures, processes, and solutions for flexibility. For example, "Grade 6, Fractions, Decimals, and Percents, Explore 4" asks students to consider "Why is it important to know multiple strategies to solve various percent problems?" Students are encouraged to try multiple strategies for converting fractions, decimals, and percents while using real-life scenarios.
- Throughout the units, the materials incorporate digital tasks and activities that provide immediate feedback as students evaluate the efficiency and accuracy of their solutions in real time. For example, "Mathematical Fluency – Operations With Decimals, Adding, Hundredths-Assessment" gives 25 fill-in-the-blank questions that show a colored dot when answered. A green dot indicates correct answers, while a red dot indicates incorrect answers. To provide flexibility, students may move forward and backward through the questions to check and recheck answers before completing the task.

Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches.

- The materials provide support for teachers in understanding strategies that lead to increasingly efficient approaches. For example, "Rational Numbers, Home, Content Support" provides a video, visual examples of strategies, and embedded professional development resources for teachers that focus on strategies for guiding students towards efficiency with classifying, identifying, and ordering rational numbers.
- The *Teacher Guide* for each unit identifies questions for teachers to guide students toward efficient processes while assessing understanding. For example, "Positive Rational Number Operations, Scope Overview, Teacher Guide" provides the questions, "How do you quickly multiply decimals by 10?" and "How can you use this strategy to solve any problem involving decimals?"
- "Mathematical Fluency Operations with Integers" is divided into tabs for adding, subtracting, multiplying, dividing, and all operations. Each of these offers embedded support for teachers to guide students toward increasingly efficient approaches. The "Student Mathematical Maze" instruction sheet notes that each problem has at least one possible solution and encourages students to compare solution pathways with classmates and "decide whether you have found the most efficient solution pathway."

Balance of Conceptual and Procedural Understanding

5.3	Balance of Conceptual Understanding and Procedural Fluency	16/16
5.3a	Materials explicitly state how the conceptual and procedural emphasis of the TEKS are addressed.	2/2
5.3b	Questions and tasks include the use of concrete models and manipulatives, pictorial representation (figures/drawings), and abstract representations.	6/6
5.3c	Materials include supports for students in connecting, creating, defining, and explaining concrete and representational models to abstract (symbolic/numeric/algorithmic) concepts.	8/8

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

Evidence includes, but is not limited to:

Materials explicitly state how the conceptual and procedural emphasis of the TEKS are addressed.

- Each "Content Unwrapped" has "Implications for Instruction" that state how the conceptual emphasis of the TEKS is addressed. For example, "Fractions, Decimals, and Percents, Content Unwrapped, Implications for Instruction" shows how students may have difficulty with percents and, according to TEKS 6.5b, suggests using concrete and pictorial models to solve real-world percent problems "so that students can build conceptual understanding of equivalent fractions, decimals, and percents."
- The scope and sequence provided in grade 6 materials map out how each lesson, activity, or resource aligns with TEKS. The Content Unwrapped includes several sections that state how conceptual and procedural emphasis of the TEKS are addressed. For example, "Area and Volume, Home, Content Unwrapped" uses "Dissecting the Standard" to outline the breakout skills, procedures for students, and academic vocabulary for TEKS 6.8b, 6.8c, and 6.8d.

Questions and tasks include the use of concrete models and manipulatives, pictorial representation (figures/drawings), and abstract representations.

- Materials incorporate the use of concrete models, pictorial representations, and abstract representations to answer questions. For example, "Integer Operations, Explain, Show What You Know" provides questions that call for drawing a color-counter model, using a number line, and showing algebraic representations of adding, subtracting, multiplying, and dividing integers.

- Tasks in grade 6 include hands-on activities with models or manipulatives that represent mathematical concepts. For example, "Integer Operations, Explore" tasks ask students to progress through using two-color counters, number lines, and symbolic notation as they work towards the abstract concept.
- Tasks and questions throughout grade 6 scaffold the use of manipulatives, pictorial representations, and algebraic representations. For example, in "Fractions, Decimals, and Percents, Explore 1," both the Student Journal Task and Exit Ticket prompt students to use partial amounts to represent the portion of lawns mowed, including hundreds grid models, number of units shaded models, fractions, decimals, and percents. Additionally, virtual manipulatives are available for the hundreds grid and shaded model.

Materials include supports for students in connecting, creating, defining, and explaining concrete and representational models to abstract (symbolic/numeric/algorithmic) concepts.

- "Fractions, Decimals, and Percents, Explore 1, Student Journal" prompts students to create a concrete model to represent percents that add up to 100% for each of the represented neighborhood lawns. The students connect the model to the percentage, fraction, and number of lawns mowed. Then students are asked to explain how the model helps them to understand the abstract concept of percents and how it is connected to fractions and decimals.
- The materials provide opportunities for students to articulate their emerging understanding of abstract mathematical concepts and procedures through creating models, explaining procedures, and practicing. For example, "Coordinate Planes, Explore 1" has students connect, create, define, and explain patterns on the coordinate plane. Students determine how number lines fit together and connect with different directions (North, South, East, and West) so that they can draw a map of the city on the coordinate plane. As they work, teachers give prompting questions to lead discussion in defining ordered pairs for specific buildings in the town. Students must explain their placement of landmarks on the coordinate plane.
- The Mathematical Modeling Task under Evaluate in each unit allows students to engage in tasks designed to help them connect, define, and explain concrete and representational models to abstract concepts. For example, "Equations and Inequalities, Evaluate, Mathematical Modeling Task" includes guidance for teachers to ask students to "determine how much food and how many drinks should be purchased for the picnic," to encourage students to define specific values and connect those values to the concrete food and drinks. Guidance is also given to "allow each group to share" with the class and "discuss how different groups tackled the challenge in different ways."

Balance of Conceptual and Procedural Understanding

5.4	Development of Academic Mathematical Language	14/14
5.4a	Materials provide opportunities for students to develop their academic mathematical language using visuals, manipulatives, and other language development strategies.	3/3
5.4b	Materials include embedded guidance for the teacher addressing scaffolding and supporting student development and use of academic mathematical vocabulary in context.	2/2
5.4c	Materials include embedded guidance for the teacher 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.	9/9

The materials provide opportunities for students to develop their academic mathematical language using visuals, manipulatives, and other language development strategies. Materials include embedded guidance for the teacher addressing scaffolding and supporting student development and use of academic mathematical vocabulary in context. Materials include embedded guidance for the teacher to support the application of appropriate mathematical language including 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.

Evidence includes, but is not limited to:

Materials provide opportunities for students to develop their academic mathematical language using visuals, manipulatives, and other language development strategies.

- The "Explain" section of each unit provides opportunities for students to develop academic language through the use of visuals with "Picture Vocabulary." For example, "Equivalent Numerical Expressions, Explain, Picture Vocabulary" includes a slideshow with visual representations and digitally manipulative flashcards that allow students to independently practice and develop mathematical language.
- The Explain section of each unit provides opportunities for students to develop mathematical language through the use of visuals and manipulatives with "Language Connections." Language Connections contains handouts for each language proficiency level and correlates to the unit vocabulary and context. For example, "Equivalent Numerical Expressions, Explain, Language Connections" handout for beginners includes a prime factorization tree anchor chart, color-coded exponent and base examples for use with manipulatives, labeled order of operations, a story containing visuals for words representing variable amounts, and a word bank for a fill-in-the-blank recipe.

- The materials include "Language Supports" that allow students to develop mathematical vocabulary by first creating a need for the language. This is accomplished through opportunities for reading and listening to new words in context. Students then apply those words in speaking and writing. For example, "Triangle Properties, Explore 1" encourages teachers to use "gestures and actions to act out vocabulary words" and place these terms on a word wall to assist students in recalling the terms throughout the lesson.

Materials include embedded guidance for the teacher addressing scaffolding and supporting student development and use of academic mathematical vocabulary in context.

- The Language Connections in each unit guide teachers in scaffolding and supporting student development and use of academic vocabulary. For each language proficiency level, different prompts are given for teachers to use with students. For example, in the "Equivalent Numerical Expressions, Explain, Language Connections" section for students with beginner language proficiency, teachers are instructed to explain factorization with a number tree, point to certain numbers, and state, "See how 20 and 2 are branched out under it? That's because 20 and 2 are factors of 40; $20 \times 2 = 40$."
- The materials include descriptions of new mathematical vocabulary for a word wall to support student use of academic vocabulary in the Implementation Guide provided under "Essentials" in the Teacher Toolbox. For each "Explore" activity, additional embedded teacher guidance is provided, which includes facilitation points concerning how to attach academic vocabulary to students' lived experiences. The guide further describes how the Explore activities provide additional teacher guidance with discussion prompts that develop students' communication with academic language and embedded strategies that help emergent bilingual learners acquire new vocabulary.

Materials include embedded guidance for the teacher 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.

- The Language Connections in each unit offer embedded guidance for the teacher to support mathematical conversations and provide opportunities for students to hear, refine, and use mathematical language with peers. Guidance is provided for students at beginner, intermediate, and advanced levels of listening, reading, speaking, and writing. For example, "Coordinate Planes, Explain, Language Connections" gives multiple prompts for teachers to point and explain as students work to improve language with listening. To aid students in reading and speaking, there is also a list of several teacher prompts followed by the sentence stem students should utilize in response.
- The "Content Support" highlights the mathematical vocabulary and syntax developed within the unit and identifies academic vocabulary from prior units to support students in building

their math language toolkit. For example, "Algebraic Expressions, Engage, Foundation Builder" includes questions that allow students to build academic mathematical vocabulary and syntax such as: "What does the word variable mean," "Does a variable have to be represented by a specific symbol or letter," and "how is the value of a variable determined?"

- The materials offer a set of discussion questions to facilitate discourse without limiting student responses, guiding students to exemplar responses to questions and tasks using developed mathematical language. For example, "Ratios, Rates, and Unit Rates, Explore 1" contains a "Math Chat" with prompts for teachers including, "If you were given a total of two fruits and the exact amount of one fruit, how could you create a ratio between the two different fruits?" This is followed by the exemplar response, "First, subtract the amount of the given fruit from the total to find out the amount of the second fruit..."

Balance of Conceptual and Procedural Understanding

5.5	Process Standards Connections	6/6
5.5a	Process standards are integrated appropriately into the materials.	1/1
5.5b	Materials include a description of how process standards are incorporated and connected throughout the course.	2/2
5.5c	Materials include a description for each unit of how process standards are incorporated and connected throughout the unit.	2/2
5.5d	Materials include an overview of the process standards incorporated into each lesson.	1/1

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

Evidence includes, but is not limited to:

Process standards are integrated appropriately into the materials.

- Process standards are included throughout the materials, including lessons, student practice, and assessments. This is evidenced through the *Teacher Guide* where the process standards are embedded in the lesson guides through all the activities. For example, "Triangle Properties, Scope Overview, Teacher Guide" under the "Explore 1" heading, "Standards of Mathematical Practice" reads, "MP.1 Make sense of problems and persevere in solving them."
- The "Grade 6: Scope and Sequence," found in the Curriculum Design section of the Teacher Toolbox, provides a template outlining the units in grade 6 and the standards, including process standards, that are integrated into each part of the materials. For example, the Fractions, Decimals, and Percents unit in the guide shows that "Explore 1" integrates TEKS 6.1ABDG, "Explore 2" integrates TEKS 6.1ABDFG, "Explore 3" integrates TEKS 6.1ABD, and "Explore 4" integrates TEKS 6.1ABD.

Materials include a description of how process standards are incorporated and connected throughout the course.

- The materials provide an overview and explanation of how the process standards are embedded throughout the course, including how the process standards connect to the content standards. For example, the "Process Standards" tab in the Teacher Toolbox shares how, in "Grade 6, Compare and Order Rational Numbers," students analyze relationships to communicate ideas. It states, "Students are to describe the process for ordering and

comparing rational numbers; reason and justify the placement of those numbers on a number line."

- "Teacher Toolbox, Essentials, Curriculum Design" contains an Implementation Guide with a section on "Standards Aligned." This section states that "the mathematical process standards are woven throughout our curriculum to build foundational skills that create effective thinkers in math." The process standards are listed in full along with a description of how they are incorporated and connected throughout the instructional materials.
- Throughout the course, materials identify each process standard addressed as evidenced by the teacher directions, below "Description" and above "Materials," where each process standard embedded in the activity is listed. For example, in "Algebraic Expressions, Explore 1" the process standards relating to this activity are listed as 6.1A, 6.1C, and 6.1E.

Materials include a description for each unit of how process standards are incorporated and connected throughout the unit.

- The Teacher Toolbox contains a Process Standards tab which includes the description and vertical alignment of how the standards are incorporated and connected throughout each lesson and unit. For example, under "Grade 6, Integer Operations," the process standard 6.1C is identified along with a list of tools and techniques for students to apply. Teacher guidance is given as, "Students use number lines and thermometers to see the relationship between numbers, their opposites, and absolute value. Students also use number lines and thermometers to locate, compare, and order rational numbers."
- The Content Support page of each unit, in addition to readiness and supporting standards, background knowledge, misconceptions, and terms to know, gives each process standard and a description of how students meet that process standard in the unit. For example, "Positive Rational Number Operations, Content Support, Applying Mathematical Process Standards" lists process standard 6.1D and follows, "Students use mathematical reasoning to determine whether quantities become larger or smaller when multiplied by fractions. Students may use models as needed to justify their reasoning."

Materials include an overview of the process standards incorporated into each lesson.

- The Explore lessons of each unit show the process standards are incorporated at the beginning of the teacher directions, and there is evidence of the use of these standards throughout the lesson in questions, activities, and assessments. For example, "Triangle Properties, Explore 1" states the use of process standards 6.1ABCEFG.
- Grade 6 materials provide specific strategies, activities, and problems for integrating the process standards into the lessons. For example, "Triangle Properties" includes different ways for students to model the sum of angles of a triangle using a variety of tools such as straws, Anglegs, protractors, rulers, and geoboards.
- The Process Standards tab in the Teacher Toolbox provides an overview with specific examples of how the process standards are incorporated and connected throughout each lesson. For example, "Process Standards – Analyze Relationships to Communicate Ideas,

Grade 6, Triangle Properties" incorporates "through exploration, discussions, productive arguments, and explanations, students determine when three lengths form a triangle."

Productive Struggle

6.1	Student Self-Efficacy	15/15
6.1a	Materials provide opportunities for students to think mathematically, persevere through solving problems, and to make sense of mathematics.	3/3
6.1b	Materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks.	6/6
6.1c	Materials are designed to require students to make sense of mathematics through doing, writing about, and discussing math with peers and teachers.	6/6

The materials provide opportunities for students to think mathematically, persevere through solving problems, and to make sense of mathematics. Materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks. Materials are designed to require students to make sense of mathematics through doing, writing about, and discussing math with peers and teachers.

Evidence includes, but is not limited to:

Materials provide opportunities for students to think mathematically, persevere through solving problems, and to make sense of mathematics.

- The materials identify high-leverage errors or misconceptions students may have and provide pre-planned teacher moves toward a solution. This allows students to think mathematically and persevere through solving problems as they find patterns to make sense of the mathematical operations. For example, "Integer Operations, Home, Content Support" points out that students may have difficulty determining the sign for adding and subtracting integers, which could confuse directionality on a number line as well as the algorithms for operations with integers. The pre-planned teacher move embedded in "Integer Operations, Explore, Explore 3, Student Journal" provides reflection questions for students to decide "If the first addend is a negative number, does the second addend need to be negative or positive to make zero?"
- The lessons in the materials challenge student thinking and problem-solving through real-world scenarios and various stimuli including tables, graphs, and diagrams. This encourages perseverance through practice to make sense of mathematics. For example, "Fractions, Decimals, and Percents, Explore, Explore 3" presents "Sales Ad" cards showing percentages and prompts students to represent the percent as a fraction, a decimal, and in a model. Students persevere in this for four different advertisements, and then to make sense of the practice, they identify where they would use fractions, decimals, and percents in the real world.
- The materials provide encouragement for students to persevere in extending and applying the concepts learned to solve real-world problems. One example is the "Two-Variable Relationships, Evaluate, Mathematical Modeling Task" in which students design a moon

settlement plan, including buildings, transportation, and food availability. Students are asked to create a table and graph based on two items from their plan and justify their choices. This task has students identifying their dependent and independent variables, formulating and creating numerical expressions, and writing the equation using their settlement design. Through productive struggle, students are encouraged to persevere when tackling high-leverage questions embedded in scenarios.

Materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks.

- The materials provide questions and tasks where students demonstrate the understanding that problems can be solved in multiple ways. For example, "Equivalent Numerical Expressions, Explore, Explore 2" guides students to break down values into factors with exponents by writing amounts in expanded form, identifying how many of each factor is in that expanded form, and writing the exponential representation of the number using factors as bases. Students also multiply the factored form to show that multiple factored forms result in the same value. Students then answer reflection questions and participate in discussions to explain and justify their thinking.
- Lessons include tasks that require students to explain that there are multiple ways to solve a problem and justify their solutions. For example, in "Algebraic Expressions, Explore 3," students represent an expression through various methods, including area models and equivalent expressions. To solve problems and complete the task, directions prompt students to "prove their thinking" by drawing the model and simplifying using the distributive property. The "Go Digital!" activity at the end of the lesson encourages students to explain their solutions using virtual manipulatives.
- The materials include tasks and problems that allow students to use multiple methods of solving. For example, "Integer Operations, Explore" provides six different lessons that teach students to complete integer operations using concrete models, number lines, and counters. Students are encouraged to make connections to each of the models used in previous lessons and explain how the different models represent the same process.

Materials are designed to require students to make sense of mathematics through doing, writing about, and discussing math with peers and teachers.

- The materials include tasks requiring students to make sense of mathematical concepts while doing math by actively engaging in hands-on activities. For example, "Two-Variable Relationships, Explore 1" uses virtual and physical coordinate boards to explore graphs and identify independent and dependent variables. Students make sense of mathematics by doing math in small groups with tables and graphs to both draw conclusions and discuss patterns-related concepts with peers and teachers. Then, students write summaries in complete sentences to explain the difference between independent and dependent variables.
- Active engagement through hands-on activities in the lessons requires students to make sense of mathematical concepts through writing. For example, "Triangle Properties, Explore 1,

Part II" pairs students together to attempt to draw triangles using measurements provided in the "Student Journal." Students are then prompted to make sense of their work by writing explanations in their journals with peers before discussing the writing with the class and teacher.

- Lessons provide opportunities for classroom discourse where students make sense of mathematics by discussing different solution strategies, making connections, and engaging in collaborative learning with peers and their teacher. For example, "Equivalent Numerical Expressions, Explore 1" divides students into peer groups to create a factor tree to aid in writing the prime factorization of a number. Students create factorization trees and find the greatest common factor (GCF) with their groups while discussing and collaborating with their peer group. At the lesson's close, students participate in a "Math Chat" to answer questions from the teacher.

Productive Struggle

6.2	Facilitating Productive Struggle	10/10
6.2a	Materials support teachers in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, and justifications.	6/6
6.2b	Materials offer prompts and guidance to assist teachers in providing explanatory feedback based on student responses and anticipated misconceptions.	4/4

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

Evidence includes, but is not limited to:

Materials support teachers in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, and justifications.

- Grade 6 materials include open-ended tasks and assessments, providing opportunities for students to share and reflect on their problem-solving approaches. For example, "Algebraic Expressions, Evaluate, Mathematical Modeling Task" gives small groups of students two problem-solving expressions and prompts them to use pictorial models to determine who has the best understanding of equivalent expressions. Instructions state that students should reflect on their journals for support and share thoughts within their small group. Students share explanations for two different approaches, argue which approach is most accurate, and reflect with justifications on their solution using both written and pictorial responses.
- Each unit contains questions to support teachers in guiding students to share explanations, arguments, and justifications. For example, "Area and Volume, Explore 1" includes a "Math Chat" with guiding questions that ask students to explain how "areas of the parallelogram and trapezoid compare to the area of a rectangle," and argue how to "decompose a medium triangle." With each question, teachers prompt students to justify their answers.
- The materials provide guidance for teachers to support students in sharing their problem-solving approaches. For example, "Triangle Properties, Acceleration, Would You Rather" encourages students to provide justifications using the properties of triangles as they decide whether they prefer to plant flowers with the Student Council or the National Honor Society. Students are asked to share their answers and justifications with partners.

Materials offer prompts and guidance to assist teachers in providing explanatory feedback based on student responses and anticipated misconceptions.

- Each unit contains a "Heat Map" that allows students to analyze their assessment responses, including those that occurred due to misconceptions. The "Procedure and Facilitation Tips" for

the heat map assists teachers in providing explanatory feedback based on these student responses while referring to the "Scaffolded Instruction Guide" for additional prompts, guidance, and resources. For example, "Fractions, Decimals, and Percents, Evaluate, Heat Map" guides teachers to "encourage students to look for patterns in their data...and use this information to reflect and set goals in the provided table." Teachers are then given guidance to consult with students to provide one-on-one or small-group explanatory feedback based on students' responses.

- The materials include teacher guidance on anticipated misconceptions and prompts for addressing them through explanatory feedback. For example, "Integer Operations, Engage, Foundation Builder" states the anticipated misconception, "Students may not understand how to add or subtract decimals with different numbers of digits to the right of the decimal." Immediately following, the teacher prompt for explanatory feedback states, "Show a sample scenario or word problem. Model the steps of lining up decimals and adding or subtracting."
- The materials include teacher guidance on students' anticipated misconceptions in each unit. Teacher guidance and prompts for explanatory feedback are found in the "Instructional Supports" section of each "Explore" lesson. For example, "Two-Variable Relationships, Explore 2" includes guidance in the Instructions Supports section that guides teachers to have students who struggle with determining between additive or multiplicative relationships use concrete objects or pictures to notice patterns.