IMRA Review Cycle 2024 Report

Publisher Name	Program Name
Kiddom	*IM360 Texas Math powered by Kiddom*

Subject	Grade Level
Mathematics	7

Texas Essential Knowledge and Skills (TEKS) Coverage: **46%**

English Language Proficiency Standards (ELPS) Coverage: **100%**

Quality Review Overall Score: **209 / 227**

IMRA Reviewers

Flags for Suitability Noncompliance **4**

Indicator	Count of Flags
1. Prohibition on Common Core	**3**
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)	**1**

Flags for Suitability Compliance **0**

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

Alleged Factual Errors **0**

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	52 / 53
2. Progress Monitoring	24 / 28
3. Supports for All Learners	25 / 32
4. Depth and Coherence of Key Concepts	19 / 23
5. Balance of Conceptual and Procedural Understanding	64 / 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.
- 1.3 Lesson-Level Design: Materials includes comprehensive, structured lesson plans with daily objectives, questions, tasks, materials, or instructional assessments required to meet the content and language standards. Materials 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.
- 2.2 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.
- 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.

- 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.
- 5.4 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, nor do they provide descriptions of how they are incorporated and connected throughout the course, within each unit, or 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

- 1.2 Unit-Level Design: Materials do not include academic vocabulary necessary to teach the concepts in the unit.
- 2.1 Instructional Assessments: Materials do not provide guidance to ensure consistent and accurate administration of instructional assessments or include standards-aligned items at varying levels of complexity.
- 3.1 Differentiation and Scaffolds: Materials do not include pre-teaching or embedded supports for references in text.
- 3.2 Instructional Methods: Materials do not include prompts or guidance to support teachers in modeling concepts to be learned.
- 3.3 Support for Emergent Bilingual Students: Materials do not provide linguistic accommodations for more than one level or include implementation guidance to support teachers in

effectively using the materials in state-approved bilingual/ESL programs. Materials do not include guidance in supporting cross-linguistic connections through oral and written discourse.

- 4.3 Spaced and Interleaved Practice: Materials do not provide interleaved practice opportunities with previously learned skills and concepts across lessons and units.
- 5.3 Balance of Conceptual Understanding and Procedural Fluency: Materials do not explicitly state how the conceptual and procedural emphasis of the TEKS are addressed.

Summary

IM360 Texas Math powered by Kiddom is a 6–8 Mathematics program that focuses on big ideas thinking and real-world connections. The curriculum gives teachers comprehensive, structured, and detailed lessons that include various questions, tasks, and assessments. Materials include teacher guidance for differentiation and scaffolds with varying instructional approaches such as the Stronger and Clearer Each Time, Collect and Display, Co-Craft Questions, Three Reads, and Discussion Supports. Additionally, the program includes coherence across units by connecting content and language learned in previous courses/grade levels.

Campus and district instructional leaders should consider the following:

- The materials feature comprehensive and detailed lessons with guidance for differentiation and various instructional approaches. The product includes some areas of alignment to the standards, such as solving equations, but the product does not address the depth of the context and student action of the grade 7 standards. In some instances, the product omits readiness standards, such as in non-proportional relationships. This misalignment of readiness standards, supporting standards, and rigor is seen throughout the product.
- The program includes opportunities for students to draw on prior grade-level knowledge. However, the discrepancy between the product and the TEKS indicates that prerequisite skills have not yet been taught to the students.

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 that outlines 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, and 210). Materials include guidance, protocols, and/or templates for unit and lesson internalization. Materials include resources and guidance to support administrators with implementing the materials as designed. Materials do not include resources and guidance to support 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.

- The materials include a supplemental scope and sequence for Texas in the Course Guide. This scope and sequence include the suggested pacing for instruction, assessment, and lesson breakdown. The lesson titles and specific learning targets are given for each lesson including the TEKS and ELPS alignment within that unit.
- The supplementary scope and sequence included in the Course Guide details the instruction of math concepts and knowledge taught in the course and a standardized chart outlining the lessons by standard.

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).

- The materials include a suggested pacing calendar found in the supplementary Texas scope and sequence. The pacing calendar is designed for 149 days of initial instruction and provides teachers with an optional additional 22 days of extensions, reviews, assessments, and

reteach for an ending total of 171 days. Guidance is provided to reduce the number of days by omitting the last unit, which will reduce the pacing to 159 instructional days.
- The structured pacing guide outlines the lessons and activities for an instructional calendar. The weekly schedule, under the Course Overview, includes a clear outline of the lessons, indicating the suggested number of days per unit based on 60-minute class periods.

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

- The Unit Dependency Chart, located under the Course Overview, outlines the sequence of material to be used in upcoming units. For example, the materials state, "There is an arrow from 7.4 to 7.8, because students are expected to use their skills in representing percentages (from 7.4) when solving problems about probability (in 7.8)." The chart also explains how the course aligns vertically with previous learning and how it connects to future units and grades. For example, the materials state, "There is an arrow from 8.3 to 8.6, because students are expected to use their skills in writing and interpreting an equation that represents a line (from 8.3) to interpret the parameters in an equation that represents a line that fits a scatter plot (in 8.6)."
- The materials include a Narrative Section, located at the beginning of each unit, which outlines the key ideas for grade 7. The narrative describes the main components of each unit, the new terminology for the course, and how the content connects to prior grades. For example, in Unit 4 the materials state, "Students began their work with ratios, rates, and unit rates in grade 6, representing them with expressions, tape diagrams, double number line diagrams, and tables."

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

- The Priority and Category list in the Anticipation Guide includes guidance on the priority of the lessons throughout the units and a summary of what students will be learning to aid with internalization. The Teacher Guide for "How to Use These Materials" includes outlines of how the unit lessons are structured and guidance on implementing instructional routines in the classroom. The materials state, "These lesson plans include a small set of activity structures and reference a small, high leverage set of teacher moves that become more and more familiar to teachers and students as the year progresses."
- The Unit Narrative in Unit 3 outlines the concepts related to circles that students are exploring in the unit. It prompts students to analyze generated answers and includes teachers notes for evaluating the students' justifications offering guidance to the main task and probable mistakes.
- The Section Level Planning Guide at the beginning of each unit outlines the unit and includes guidance on areas within the resource including Explore, Deep Dive, Synthesize and Apply, and Anytime Resources.

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

- On the Support page of the Kiddom website, there are 19 articles available for administrators that provide information and resources to help navigate Kiddom for their school or district. Categories for resources and guidance include Teaching With Kiddom, Features, Customizing Kiddom, Grading & Reporting, Kiddom Integrations, Students and Families, and Troubleshooting. For example, the article titled "What are Admin Assignment View Reports?" provides administrators with guidance on the student achievement report. Specifically, Assignment View reports "equip school and district leaders, like you, with tools and data to make better instructional decisions and resource allocation decisions."
- In the section About These Materials, administrators are directed on how teachers can utilize the materials. The materials state, "There are two ways students can interact with these materials. Students can work solely with printed workbooks or PDFs. Alternatively, if all students have access to an appropriate device, students can look at the task statements on that device and write their responses in a notebook or print companion for the digital materials." These materials do not refer to or provide any resources or guidance for instructional coaches.
- The materials include resources to support administrators and instructional coaches, such as video training. The materials state, "As part of Kiddom's NEW Admin Insights Reporting Package, we now offer Usage Reports! These reports allow district and school leaders to gain insight into Kiddom activation and usage across schools. This video link provides materials that include resources and guidance to support administrators and instructional coaches in implementing the materials as designed."

Intentional Instructional Design

1.2	Unit-Level Design	3/4
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.	**1/2**
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 to effectively teach the concepts in the units. The materials do not include comprehensive unit overviews that provide the academic vocabulary to effectively teach the concepts in the units. Materials contain supports for families in both English and Spanish for each unit with suggestions on supporting the progress of their students.

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 a narrative section that includes an overview and background content knowledge, outlining the key ideas for the grade 7 materials. The narrative describes the main components of each unit, the new terminology for the grade level, and how the content connects to prior grades. Teachers are provided with a slide deck for the entire year of glossary terms that include the word, definition, and graphic or picture.
- The materials provide access to a set of academic terms within the resource. At the beginning of the course and throughout the units, the materials contain Glossary Terms. This includes a slide deck providing "a complete grade-level list including word, definition, and picture for all vocabulary words introduced in the IM Math curriculum." However, academic vocabulary is not clearly provided in the unit overviews. Academic vocabulary directly connected with each lesson or activity is not evident. Academic vocabulary is only offered for the entire resource. The glossary terms provided are insufficient to teach each unit's concepts effectively.

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

- The materials contain resources to support families with information to assist their students in learning in English and in Spanish. Family Support Materials in each unit provide an overview of student learning objectives and suggestions for ways caregivers can support the unit learning at home. Additionally, caregivers can access their student's progress.
- Each unit overview includes family support materials in English and Spanish. These materials can be accessed online or in PDF form and include lesson videos. The materials provide a

description of problem-based curriculum, support for learners, and ideas to encourage learners to be successful.

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 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 extending practice.

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.

- The online materials provide the teacher with comprehensive, structured, and detailed lessons that include questions to meet the content and language standards of the lesson. For example, in Unit 1, Lesson 1, the materials provide questions to ask students such as "What are some of the tools in the geometry toolkit and what are they used for?" and "Draw two shapes that you know do not have the same area. How can you tell?"
- The materials provide Unit Narratives and learning goals for the teacher to internalize the lesson. Teachers are provided with a pre-assessment to check for student readiness, a mid-unit assessment, and an end-of-unit assessment. All assessments include multiple ways for students to show their learning.
- The materials offer a comprehensive lesson plan that guides teachers to walk students through the tasks required to meet the standards of the lesson. Supports are offered for students with disabilities and students who are English language learners.
- The materials include a lesson narrative, learning goals, and student-facing learning targets. A list of required materials and a description of the required preparation for the upcoming lesson is included in the material. The lessons provide clear descriptions of how to launch tasks, advance students' thinking, and how to engage the class in an activity synthesis.

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

- The materials provide timing for the units in the Texas Scope and Sequence. Teachers are provided with the number of days needed to teach the lesson and days needed for reteaching and assessment.
- The material includes overall timing for lesson components such as the warm-up, the instructional activities, the lesson synthesis, and the cool-down. Each of the lesson phases has a link in the system which requires teachers to click to determine the total timing for each lesson. For example, Unit 2 Lesson 1 contains four parts including 1.1: Warm-up for 5 minutes, 1.2: The Teacher's Collection for 10 minutes, 1.3: The Student's Collection for 20 minutes, and 1.4: Cool-down for 5 minutes for a total of 40 minutes for the lesson sequence.

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

- The materials provide a section in the Course Overview titled "Required Materials" that lists the materials needed for each unit. This includes various items such as manipulatives, copies, and pre-cut materials. This section describes what teachers need to do before the lesson to prepare materials.
- At the lesson level, the materials provide a list of materials needed to support the lesson's objective by stating the Required Materials and the Required Preparation for the lesson. For example, In Unit 2, Lesson 1, the Required Materials state, "Students' collections of objects, Teacher's collection of objects, and Tools for creating a visual display" and the Required Preparation states "A few days before this lesson, ask students to bring a personal collection of 10-50 small objects. Examples include rocks, seashells, trading cards, or coins. Bring in your personal collection and display it ahead of time. Think of possible ways to sort your collection. (See the Launch section of the first activity for details). Prepare a few extra collections for students who don't bring one."

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

- The Section Level Planning guide for each lesson includes a description that includes guidance on what students can use for ongoing practice. In Unit 2, the materials state, "Assign one or more of the distributed practice problem sets from Lessons 1–5 to be completed over the time period that the section is being worked on."
- The Section Level Guide also includes "Anytime Resources" that can be used outside of instructional time for extended practice. Unit 2 suggests "Culminating Lessons from Unit 1 and Lesson 1 Activity 3" for extended practice.
- The Family Support Materials found at the beginning of each lesson offer teachers activities that can be sent home with students for extended practice. For example, the materials for grade 6 Unit 1 describe the lesson, provide a list of materials, ask a question stem, and provide a solution to support students working at home.

Progress Monitoring

2.1	Instructional Assessments	20/24
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.	**0/2**
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.	**0/2**

The materials include a variety of instructional assessments at the unit and lesson level that vary in types of tasks and questions. Materials include the definition and intended purpose for the types of instructional assessments. Materials do not include consistent and accurate administration of instructional assessments. Materials include diagnostic, formative, and summative assessments that align to the TEKS and objectives of the course, unit, and lesson. Materials do not include assessments that vary in 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.

- Materials provide various tasks at the unit level as seen in the grade 6 materials. Each unit includes a Check for Readiness diagnostic assessment, a formative cumulative practice, and a summative end-of-unit assessment. These materials feature a variety of question formats on the instructional assessments, including open-ended questions, short responses, multi-select, and multiple choice.
- Each lesson plan provides opportunities for formative assessment in various formal and informal ways. Opportunities include warm-ups, tasks throughout the lessons such as turn and talks, and cool-downs.
- The materials include a range of tasks at the lesson level. Each lesson includes a warm-up, activities, and a cool-down. The warm-ups often include activation of prior knowledge which may be considered diagnostic. For example, in grade 7, Unit 2, Lesson 1, the students are asked to reason about equivalent ratios based on their understanding from grade 6. The activities allow opportunities for students to share their understanding in a formative nature, and the cool-downs are often open-ended questions that require students to show what they have learned.

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

- The materials include definitions of instructional assessments in the Course Overview, Teacher Guide, and Assessment section. This description includes the purpose of each assessment, guidance on strategies teachers might use to administer the assessments, and examples. For instance, information about the diagnostic assessment states "Most of the problems address prerequisite concepts and skills for the unit. Teachers can use these problems to identify students with below-grade needs, or topics to carefully address during the unit. Check Your Readiness also may include problems that assess what students already know of the upcoming unit's key ideas, which teachers can use to pace or tune instructions; in rare cases, this may signal the opportunity to move more quickly through a topic to optimize instructional time." Materials do not include teacher guidance to ensure consistent and accurate administration of instructional assessments.
- The Teachers Guide includes a rationale for the intended purpose of instructional assessments. It provides a narrative that details the lesson that each question is related to and what to do if a student misses the item and supports the teacher with evaluating student responses for instructional decisions. For example, the resource states "This item assesses how students approach finding the area of a rectangle with whole-number side lengths. Including tick marks is to help students who wish to draw a grid of unit squares. Responses that show drawing with the incorrect number of unit squares, irregular rows, or irregular columns may indicate that students have not yet learned to structure two-dimensional space; that is, to see a rectangle with whole-number side lengths as composed of unit squares or composed of iterated rows or columns of unit squares." This resource does not assist in the consistent or accurate administration of instructional assessments.

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

- The Cumulative Practice questions located at the end of every lesson include notes for evaluating responses and samples of how students might respond. This is provided to assist teachers with consistent administration and scoring of each assessment item.
- Materials do not include teacher guidance to ensure accurate administration of the assessments. Teachers need additional guidance on how long tests should take, how to score and calibrate, and how to provide instruction and support to the students during the assessment.

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

- The Section Level Planning Guide includes a table that indicates the objective and related assessment suggestions for each lesson. The publisher provided a separate Formative

Assessments - TX TEKS document that shows the alignment of the TEKS. This document includes the diagnostic, formative, and summative assessments within the material.

- The diagnostic, formative, and summative assessments are aligned with the TEKS, and objectives of each unit as outlined in the Formative Assessments - TX TEKS document provided by the publisher. For example, the document identifies Unit 5 Lesson 6.1 Warm-up as TEKS 7.3B, Unit 5 Lesson 1.5 Cool-down as TEKS 7.A, and Unit 2 Grade 7.2 End of Unit Assessment A as TEKS 4.A.

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

- The Formative Assessment document outlines the alignment between the TEKS and the formative assessments within the resources. This resource includes the TEKS, the location of the formative assessment, and a description of what TEKS the formative assessment aligns with. The materials do not include items at varying levels of complexity.
- The End of Unit assessments include multiple-choice, multi-select, drawing, and short-answer open-response item types. Items vary in item type but are not labeled as varying levels of complexity. There is no label of Depth of Knowledge or varying levels of Bloom's Taxonomy mentioned to support varying levels of complexity within the 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 assessment and scoring information provide guidance for interpreting and responding to student performance. Materials do not include instructional assessments and scoring information for interpreting a student's 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.

- The materials provide teachers with guidance on responding to student performance on assessments. The PDF version of the teacher's guide includes suggestions for teachers on how to proceed with students who miss each question on the Check for Readiness Assessment. For example, in the Response to Student Thinking, teachers are told "If students struggle with the general concept of describing ratios in the cool-down, plan to focus on the verbal description of ratios when opportunities arise over the next several lessons. For example, in Activity 2 of Lesson 4, ask students to clearly articulate the association between the two quantities."
- The Cumulative Practice questions contain guidance for educators to assess student performance by providing evaluation criteria and examples of potential student responses. This resource is designed to help teachers maintain consistency in administering and evaluating each assessment item. For example, each cumulative assessment and end-of-unit assessment includes guidance on the total number of points for each test and the number of points for each question in the assessment.
- Within the Formative Assessment Opportunities section, the materials include information for teachers to interpret and respond to student responses as specified. The materials state, "Each instructional task is accompanied by commentary about expected student responses and opportunities to advance student thinking so that teachers can adjust their instruction depending on what students are doing in response to the task. Often, there are suggested questions to help teachers better understand students' thinking."

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

- Guidance is provided for teachers on how to respond to student performance on assessments. The cool-down provides a section, Responding to Student Thinking, that includes guidance on misconceptions. Lesson 1 cool-down states "If most students struggle with this item, plan to use this problem or a similar one as an additional warm-up activity."
- The diagnostic assessments, such as the Check Your Readiness, include guidance on how to respond to student thinking and direct teachers to tasks and activities such as additional warm-ups or lessons to support learning of the concepts missed.

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

- The Student Dashboard allows students to track their progress and growth. Students can see late assignments, notifications about their assignments, grades, and teacher's feedback. This dashboard shows their overall grade but also breaks down the student's learning by standard.
- The section titled Information for Families provides students with student learning targets and a self-assessment tool. The resource includes lesson summaries, lessons, and practice sets students can use to track their progress through the course.

Supports for All Learners

3.1	Differentiation and Scaffolds	6/8
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)	**1/2**
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.	**2/3**

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 in text (e.g., figurative language, idioms, academic language). Materials do not include pre-teaching or embedded supports for references in text (e.g., figurative language, idioms, academic language). Materials include teacher guidance for enrichment and extension activities for students who are proficient in grade-level content and skills. Materials do not include guidance for differentiated instruction for students who are proficient 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.

- The Teacher's Course Guide provides teachers with all the elements of the resource that provide more access for students with disabilities. These elements provide structure for all students who have yet to reach proficiency on grade-level content and skills. The structures the text provides include consistent lesson structure, concepts developed from concrete to abstract, brain breaks, and planned processing time. Additional supports are designed using the Universal Design for Learning Guidelines provided in the material. Each lesson is carefully designed to maximize engagement and accessibility for all students. The Course Guide states, "Purposeful design elements support access for all learners but are especially helpful for students with disabilities."
- The materials include differentiated activities that provide guidance for teachers to support students still developing proficiency with grade-level content and skills. Lesson 2 includes opportunities for students to work together in dialogue before responding to the teacher. This differentiated activity provides students with time to process the information with a peer before sharing their thinking with the whole group.
- The Math Teacher's Guide includes Supporting Diverse Learners, Universal Design for Learning, and Access for Students with Disabilities. These sections describe features of the lessons that support learners of different levels.

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

- The materials include teacher guidance to support students with unfamiliar vocabulary found within the unit. For instance, Unit 3 includes guidance for teachers to introduce vocabulary such as *diameter*, *center*, *radius*, and *circumference*. The materials require students to access the vocabulary by sorting objects and describing their characteristics. The materials guide teachers to introduce the concepts of the vocabulary by describing important points teachers should share.
- The New Terminology table in Unit 1 provides the teacher with an overview of where new vocabulary words appear within the lesson. The table identifies the vocabulary as receptive and productive vocabulary words. The resource states "The table shows lessons where new terminology is first introduced, including when students are expected to understand the word or phrase receptively and when students are expected to produce the word or phrase in their own speaking or writing."
- Materials provide information to assist teachers in anticipating students using unfamiliar vocabulary for mathematical purposes such as comparing, explaining, and describing. Throughout the unit, students will benefit from routines designed to support and grow a robust disciplinary language, both for their sense-making and for building shared understanding with peers. Teachers can formatively assess how students are using language in these ways, particularly when students are using language to compare, explain, and describe.
- Materials do not include supports for unfamiliar references in the text.

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

- The materials state, "Every extension problem is made available to all students with the heading 'Are You Ready for More?' These problems go deeper into grade-level mathematics and often make connections between the topic at hand and other concepts. Some of these problems extend the associated activity's work, but some involve work from prior grades or units in the course. The materials state that these problems are "not routine or procedural and they are not just the same thing again but with harder numbers."
- The materials provide teacher guidance for enrichment activities for students who have demonstrated proficiency in grade-level content and skills. An example of an enrichment lesson can be found in Unit 1, Lesson 8, which states "This culminating lesson is optional. In this lesson, students apply what they have learned about scale drawings to solve problems involving constant speed."
- Materials do not include teacher guidance for differentiated instruction for students who have demonstrated proficiency in grade-level content and skills. The materials include a Section Level Planning guide that provides teachers with guidance on Deep Dive activities and assessment suggestions. These activities are intended to support teachers with guidance on how to deepen the learning for students who have shown proficiency with the grade level content in the form of practice and assessment but do not include guidance for differentiated instruction.

Supports for All Learners

3.2	Instructional Methods	11/13
3.2a	Materials include prompts and guidance to support the teacher in modeling, explaining, and communicating the concept(s) to be learned explicitly (directly).	**4/6**
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 that support the teacher in explaining, and communicating the concepts to be learned. Materials do not include prompts and guidance to support the teacher in modeling the concepts to be learned. Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using various instructional approaches. Materials support multiple types of practice and include guidance for teachers and recommended structures 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).

- The Lesson Narrative or Activity Narrative provided in each lesson and unit guides teachers with prompts to explain the concept to be learned. For instance, Unit 1, Lesson 2 states, "This lesson introduces students to the idea of a scaled copy of a picture or a figure. Students learn to distinguish scaled copies from those that are not-first informally, and later, with increasing precision."
- Through the Launch of the lessons, the material includes explicit guidance and prompts to support the teacher in communicating the concept to be learned. Unit 1, Lesson 3 states, "Tell students to close their books or devices (or to keep them closed). Reveal one problem at a time. For each problem: Give students quiet think time and ask them to give a signal when they have an answer and a strategy. Invite students to share their strategies and record and display their responses for all to see. Use the questions in the activity synthesis to involve more students in the conversation before moving to the next problem. Keep all previous problems and work displayed throughout the talk." The materials suggest that if a student is calculating an exact solution to each problem, ask the student to look closely at the characteristics of the numbers and how an operation would affect those numbers.
- While the materials do have a short lesson narrative for teachers in the Lesson Summary, the guidance does not provide teachers with clarity on how to model the concept for students. For example, the description in Unit 7, Lesson 8 shows an image of three triangles that can be used to support the learning in the unit. They provide guidance to the teacher by saying that the image "shows two 'different triangles' (triangles that are not identical copies). The first two

triangles are identical copies, so they are the same, but the third is not, so it is different than the other two." From this description, teachers are not given examples to model or practice these ideas with students.

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

- The Course Guide includes teachers eight instructional routines for delivering and facilitating an effective lesson. These instructional approaches include Stronger and Clearer Each Time, Collect and Display, Critique, Correct, Clarify, Information Gap Cards, Co-Craft Questions, Three Reads, Compare and Connect, and Discussion Supports.
- Teachers are offered a variety of instructional approaches for delivering an effective lesson. For example, the Course Guide Course Overview Instructional Approaches section lists the "MLR1: Stronger and Clearer Each Time" strategy. This strategy is described as a chance to "provide a structured and interactive opportunity for students to revise and refine their ideas and verbal and written output." This routine provides a purpose for student conversation as well as fortifies output."
- The materials offer a variety of instructional approaches for facilitating an effective lesson. The Lesson 8 Activity Synthesis in Unit 7 tells teachers to "Ask students what this means about all the triangles in the set (they are not all identical to each other). Explain that "While there are certainly times when the position of a triangle is important ('I wouldn't want my roof upside down!'), for this unit in geometry, we will consider shapes the same if they are identical copies."

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 materials provide teachers with guidance for the effective implementation of the content. Guidance is given in the Lesson 2 Activity Synthesis which states "Have partners share responses with the class and ask at least one student for each option for their reasoning. Give students time to discuss their reasoning until they come to an agreement."
- Materials support multiple types of practice to support effective implementation. Warm-ups, activities, and cool-downs are provided in every lesson for student practice. Materials provide step-by-step instructions for guided practice, independent practice, and collaborative practice. For example, Unit 6, Lesson 1 Launch asks the teacher to have students think-pair-share their ideas relative to the entrance fees to a park.
- The materials include different learning structures such as individual, small group, and whole group. For example, Unit 1 Lesson 1 Launch guides the teacher to give students quiet individual think time for a few minutes, small group sharing with their partners, and then a whole-class follow-up discussion.

Supports for All Learners

3.3	Supports for Emergent Bilingual Students	8/11
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.	**1/2**
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.	**6/8**
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 linguistic accommodations designed to engage students in using increasingly more academic language. Materials do not include guidance on providing linguistic accommodations for various levels of language proficiency. Materials include implementation guidance to support teachers in effectively using the materials in state-approved bilingual/ESL programs. Materials include guidance for teachers to support emergent bilingual students in developing academic vocabulary, increasing comprehension, and building background knowledge through oral and written discourse. Materials do not provide guidance in supporting cross-linguistic connections through oral or 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 Teacher's Guide provides linguistic accommodations through Math Language Routines designed to engage students in academic language development. For example, the Collect and Display routine for Unit 1, Lesson 5, directs the teacher to "display sentence frames to support students when they explain their strategy."
- The materials include a broad section in each lesson called "Support for English Learners." This section includes one of the Math Language Routines with ideas on how to engage students in listening, speaking, reading, and writing with content. Each lesson in the materials includes one of these language routines for all students. The materials do not include guidance on providing accommodations for students at various levels of language development.

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

- The materials provide Mathematical Language Routines (MLRs) that are "grounded in four design principles that promote mathematical language use and development." The materials define MLRs as "instructional routines that provide structured but adaptable formats for amplifying, assessing, and developing students' language."
  The materials include a section titled Supporting Diverse Learners that supports teachers in effectively using the materials. The materials state, "Embedded MLRs are described in the teacher notes for the lessons in which they appear." They continue to state "MLRs are written into each lesson, either as an embedded structure of a lesson activity in which all students engage, or as a suggested optional support specifically for English learners."

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 Course Guide describes instructional strategies for developing academic vocabulary and increased comprehension through oral and written discourse. For example, the Clarify, Critique, Correct Routine states, "This routine fortifies output and engages students in meta-awareness."
- The Course Guide provides teachers with sentence frames to support Emergent Bilingual (EB) students in oral and written discourse to increase comprehension of the content. These sentence frames are open-ended to "amplify language production rather than constrain it." The sentence frames are generic enough to be used with any topic and provide the language functions of describing, explaining, justifying, generalizing, critiquing, comparing and contrasting, representing, and interpreting.
- Unit 1, Lesson 1 supports EB students in building background knowledge using Math Language Routine 2. These routine states, "The purpose of this routine is to capture a variety of students' words and phrases in a display that students can refer to, build on, or make connections with during future discussions, and to increase students' awareness of language used in mathematic conversations."
- The materials do not provide guidance on making cross-linguistic connections through oral or written discourse.

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

- The materials are not designed for dual language immersion programs. However, the materials include a section in each lesson called Support for English Learners. This section includes a Math Language Routine with ideas on how to engage students in listening, speaking, reading, and writing with content. Each lesson in the materials includes one of these language routines for all students. The Course Guide also supports teachers by providing

sentence frames to support emergent bilingual students in oral and written discourse to increase comprehension of the content.

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 materials provide opportunities for students to demonstrate their depth of understanding aligned to the TEKS. Materials supply teachers with questions and tasks that increase in rigor and complexity with grade-level mathematical 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.

- At the end of each unit, students complete an End-of-Unit Assessment that requires students to demonstrate their depth of understanding. The Teacher Guide states, "These assessments have a specific length and breadth, with problem types that are intended to gauge students' understanding of the key concepts of the unit while also preparing students for new-generation standardized exams."
- The publisher provides a separate document linking each unit to a list of TEKS covered in the lesson. For example, to address Texas Essential Knowledge and Skill standard 7.6H, Unit 8, Lesson 5, the Lesson Narrative states "In future lessons, students will be asked to design and use simulations. Each lesson leading up to that helps prepare students by giving them hands-on experience with different types of chance experiments they could choose to use in their simulations."

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

- The materials provide practice questions relevant to the lesson and increase in complexity and rigor. For example, in the Cumulative Practice Problems Set for Unit 2 Lesson 1 question 5, the students are given a two-part question. Part A asks the students to find 3 different ratios equal to 7:3. Then Part B asks the students to explain why these ratios are equivalent.
- The materials provide teachers with an example of tasks that progressively increase in rigor and complexity. In the Teacher Guide, Unit 4, Lesson 7, teachers are given instructions for the TEKS about finding the percentage of a number and percent increase/decrease. This lesson begins with connecting double-number line percents to equations.

- Tasks in the materials increase in rigor as the learning lessons move throughout the unit. For example, in Unit 6, students' progress from lessons involving reasoning with equations to moving flexibly through lessons involving solving using equations.

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 grade bands through a logically sequenced and connected scope and sequence. The 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 grades and what will be learned in future grades to the content to be learned in the current grade level. Materials demonstrate coherence between the students' prior knowledge of concepts and procedures to the current grade-level mathematical knowledge and skills at the lesson level.

Evidence includes, but is not limited to:

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

- The scope and sequence of the materials describes how unit topics are logically sequenced. In the Unit Dependency Chart, an arrow indicates that a particular unit is designed for students who already know the material in a previous unit. The materials state that "Reversing the order would have a negative effect on mathematical or pedagogical coherence."
- The grade 7 Course Guide Narrative includes a detailed description of the progression of the units as well as how the units connect to prior grade levels. The materials are logically sequenced in the course narrative. For example, in the grade 7 progression details for Unit 1, the materials share details about prior grade-level experiences by stating "Students began to learn about two- and three-dimensional shapes in kindergarten, and continued this work in grades 1 and 2, composing, decomposing, and identifying shapes." From here, they continue to describe how to connect this prior learning to the current unit.
- The Course Guide provides teachers with a dependency guide that outlines the vertical alignment of each unit between grade 6 and grade 8. The Course Guide also provides teachers with a dependency guide for grade 3 through grade 8 for those who need to know the sequence of lower grades to work with their students. For example, the information in Unit 6.1 leads to Unit 7.7 which then leads to Unit 8.5.

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

- The materials begin with the concrete concept of scale drawings before moving into Proportional Relationships, Circles, Proportional Relationships with Percents, Rational Number Arithmetic, Expressions, Equations, and Relationships; Angles, Triangles, and Prisms; and then to Probability and Sampling. Although districts may choose or prefer various sequences of instruction, this is a coherent flow of the big ideas that will connect concepts for students across the grade 7 materials.
- The Course Guide Narrative describes coherence across units connecting big ideas of mathematical concepts. The sequence of concepts is as follows: Scale Drawings, Proportional Relationships, Measuring Circles, Proportional Relationships and Percentages, Rational Number Arithmetic, Expressions, Equations, Inequalities, Angles, Triangles, and Prisms; and Probability and Sampling.

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 reference prior learning which assists teachers in understanding how to connect the content being learned in the current course to the previous grade level. The Unit 2 Lesson 1 Warm-Up begins by reminding the teacher that students learned about the double number lines in previous grades by sharing that "This activity prompts students to reason about equivalent ratios on a double number line and think of reasonable scenarios for these ratios as a review of their work in grade 6." As the lesson progresses, students make connections to the ratios they will be using in the grade 7 materials.
- The materials describe what the students will learn and how it's related to concepts and language learned in future grade levels. For example, the Unit 5 Unit Narrative states "Exponents - in particular, negative exponents - are not a focus of this unit. Students work with integer exponents in grade 8 and non-integer exponents in high school."
- The materials connect the current grade level content to how that content will be seen in future grade levels. For example, the Unit 2 Narrative provides the teacher with information about the content that students will see in grade 8. In this example, teachers are informed that "students develop the idea of a proportional relationship out of the grade 6 idea of equivalent ratios. Proportional relationships prepare the way for the study of linear functions in grade 8."

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 materials provide teachers with opportunities to learn about students' prior understanding of concepts and procedures. To connect to students' prior understanding, in Unit 7, Lesson 12.2, teachers are reminded that students worked with the volume of rectangular prisms in

grades 5 and 6. In this unit, the materials ask students to "extend their understanding to see that even when the base is not a rectangle, they can still calculate the volume of a prism by multiplying the area of the base times the height of the prism." Students use prior content knowledge to apply it to a new type of problem. The Lesson Narrative in Unit 6, Lesson 11 instructs teachers that the students will be bringing "together the skills and concepts that have been studied in the unit so far. Students solve problems that can be represented by equations in the form $p(x + q) = r$ and $px + x = r$"

- The materials provide students with opportunities to connect prior knowledge of concepts and procedures from the current grade level. For example, in Unit 2 Lesson 2, the students participate in an activity, Feeding a Crowd, to be introduced to the idea of a proportional relationship. From previous work, students should be familiar with the idea of equivalent ratios, and they may very well recognize the table as a set of equivalent ratios. Here, the materials are starting to expand this concept and the language associated with it to say that "There is a proportional relationship between the cups of rice and the number of people, as well as the number of spring rolls and number of people."

Depth and Coherence of Key Concepts

4.3	Spaced and Interleaved Practice	4/8
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.	**0/4**

The materials provide spaced retrieval opportunities for previously learned skills and concepts across lessons and units. Materials do not provide interleaved practice opportunities with previously learned skills and concepts across the 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 integrate skills from the current lesson and previous lessons within the same unit. For Example, the Cumulative Practice Problem Set for 7.5.C has 10 questions for both multiplication of whole numbers and fractions (current lesson) and ordering numbers (previous lesson).
- The materials provide a spiral review of concepts and skills across lessons. The Unit Assessments have questions about several concepts and skills from all lessons within the unit. For example, the 7.8 End-of-Unit Assessment has questions from several concepts and skills, such as simulating multi-step experiments, sampling, and comparing populations.
- The materials provide students with opportunities for spaced retrieval practice to show mastery of previously learned concepts and skills across units. Unit 4, Lesson 9 Practice Problem Set includes practice questions from Unit 4, Lesson 9, but also includes questions from Unit 4, Lesson 7, and Unit 4, Lesson 6.

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

- The materials do not provide interleaved practice opportunities for skills and concepts across lessons and units. In Unit 3, Lesson 3.2, the materials provide the students with practice of Circumference, but there are no interleaved practice opportunities with previously learned skills and concepts across lessons and units. "In this activity, students measure the diameter and circumference of different circular objects and plot the data on a coordinate plane, recalling the structure of the first activity in this unit where they measured different parts of squares." Students use a graph to conjecture an important relationship between the circumference of a circle and its diameter.

- The materials leverage questions that are aligned to each lesson and unit instead of interleaved practice. The cumulative practice questions, mid-unit assessments, and end-of-unit assessments all include questions aligned with the current lesson and unit.
- The materials include a cumulative practice set at the end of each lesson. These question sets are focused on the skills in the current lesson and unit and do not include interleaved practice opportunities across lessons or 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 materials include questions and tasks that require students to interpret, analyze, and evaluate a variety of models and representations for mathematical concepts and situations. Materials include questions and tasks that require students to create a variety of models to represent mathematical situations. Materials include questions and tasks that 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 models that support the learning of mathematical concepts and situations. Unit 1 Check Your Readiness question 4 provides students with an opportunity to interpret, analyze, and evaluate a model. Part A provides students with a shape on a grid. Students are asked to find the area of the shape and to represent the same area differently.
- The materials provide tasks that require students to use models that support the learning of mathematical concepts and situations. Unit 1 Check Your Readiness question 6 provides students with an opportunity to interpret, analyze, and evaluate a model. Students are given a table with ingredients for a recipe and are tasked with scaling up the recipe to make multiple loaves of bread.

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

- The materials include questions that require students to use models to represent situations. In the assessment section of the Teacher Guide, the materials note that questions provide multiple ways for students to demonstrate understanding using representations such as tables, graphs, diagrams, expressions, and equations. For example, in Unit 1, Check Your Readiness, question 7 asks students to draw a polygon and then draw a representation of that polygon using a scale factor of 3.

- The materials include tasks that require students to understand mathematical situations seen in data and how to represent them. The Design Principles include information about how when a new representation is introduced, it is often presented with a familiar idea first and students are asked to interpret it. The new representations are connected to familiar representations or extended from familiar representations. Students are then given clear instructions on how to create such a representation as a tool for understanding or solving problems. The materials state, "For subsequent activities and lessons, students are given opportunities to practice using these representations and to choose which representation to use for a particular problem." For example, Unit 1, Lesson 1.2, presents students with an original drawing of the letter F. The task then requires students to identify "all the drawings that are scaled copies of the original letter F."

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

- The materials include questions that prompt the student to apply conceptual understanding to new contexts. The Design Principles discuss the learning progress of students and as students consolidate their conceptual understanding they can see and understand more efficient methods of solving problems. In Unit 1, Check Your Readiness, question 5 begins with a shape and a formula. Students must decide whether that formula leads to the shape's perimeter, area, or neither.
- The materials include tasks that prompt students to apply conceptual understanding to new contexts. For example, in Unit 1, Lesson 7.3, the students are presented with a scale drawing of the "World's Tallest Structures." Students compare the heights of these scaled drawings to determine if statements are true or false.

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 for grade-level tasks. Opportunities are provided in the material for students to practice efficient, flexible, and accurate mathematical procedures within lessons and units. Materials include the opportunity for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy within lessons and units. Support is embedded within the material 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.

- The materials provide students with tasks that build automaticity and fluency for grade-level tasks. The Design Principles in the Teacher Guide describe how as students progress in their learning, they make connections between different representations and strategies, consolidate their conceptual understanding, see and understand more efficient methods of solving problems, and make a shift toward procedural fluency. The distributed practice problems give students ongoing practice and support students in developing procedural proficiency and building automaticity. For example, in Unit 1, Lesson 5.1, the Number Talk in the warm-up states "This number talk encourages students to use structure and the relationship between multiplication and division to mentally solve problems involving fractions. It prompts students to think about how the size of factors impacts the size of the product. It reviews the idea of reciprocal factors in preparation for the work in the lesson."
- The materials include tasks designed to build student automaticity and fluency throughout the lessons. The Typical IM Lesson describes the warm-up as an opportunity to strengthen number sense or procedural fluency by asking students to do mental arithmetic or reasoning numerically or algebraically. The warm-up also gives students a chance to make deeper connections and become more flexible in their thinking. For example, in Unit 1, Lesson 2.1, the warm-up uses a Number Talk that states "This number talk allows students to review multiplication strategies, refreshing the idea that multiplying by a unit fraction is the same as

dividing by its whole number reciprocal. It encourages students to use the structure of base ten numbers and the properties of operations to find the product of two whole numbers."

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 offer students opportunities to practice being efficient, flexible, and accurate in their mathematical procedures when solving problems. In the Design Principles, the materials state that "carefully chosen anchor contexts are used to motivate new mathematical concepts, and students have many opportunities to make connections between contexts and the concepts they are learning. In some cases, students spend more time developing mathematical concepts before tackling more complex application problems, and the focus is on mathematical contexts." In Unit 1, Lesson 2.1, the Number Talk warm-up has students devise their way of working the problem and then share their method with the class to encourage students to explore which method works best for them. The task states "A student might find 72·19 (or 72÷9) and then shift the decimal one place to the right to evaluate (7.2) ·19. Each problem was chosen to elicit different approaches, so as students share theirs, ask how the factors in each problem impacted their strategies."
- The materials include a warm-up at the beginning of each lesson. One of the instructional routines used in the warm-up is a Number Talk. The materials provide the teachers with structured math talks that lead to more efficient mathematics throughout the unit. In Unit 2, Lesson 4.1, the Number Talk warm-up states "This number talk encourages students to think about the numbers in division problems and how they can use the result of one division problem to find the answer to a similar problem with a different, but related, divisor."

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

- Teachers are provided with support within the material that ensures students are learning to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy. In Unit 4, the Lesson 2 Lesson Synthesis instructs students in proportional relationships and percentages. Students are asked to solve proportions and use positive rational numbers throughout each lesson and the unit. The Lesson Synthesis asks students for different strategies to use to solve a proportion. It provides teachers with a few options to guide students. One option states, "What are strategies we can use to find solutions to ratio problems that involve fractions?" Sample responses include double number lines, tables, or calculating unit rates. Having students try different strategies allows them to evaluate procedures and processes and become flexible in their problem-solving to ensure they develop an efficient approach.
- The Unit 4 Lesson 7 Lesson Synthesis has teachers ask, "What strategies have we used to help us calculate percent increase and decrease?" This lesson allows students to try different strategies and problem-solving methods to build their flexibility and accuracy for grade-level material.

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

- Support is embedded in the materials for teachers to help guide students toward finding increasingly efficient approaches. For example, in Unit 4, the Lesson 2 Lesson Synthesis instructs students in proportional relationships and percentages. Students are asked to solve proportions and use positive rational numbers throughout each lesson and the unit. The Lesson Synthesis discusses asking students for strategies to use to solve a proportion. It provides a few optional questions teachers can ask such as "What are strategies we can use to find solutions to ratio problems that involve fractions?" Sample responses are given so teachers can guide students toward efficient approaches.
- The Unit 4 Lesson 7 Lesson Synthesis asks "'What strategies have we used to help us calculate percent increase and decrease?' (double number line, table, equation)." By seeing and trying different strategies, problem-solving methods can be flexible and efficient from student to student, while providing examples to the teacher to help guide students towards more efficient approaches.

Balance of Conceptual and Procedural Understanding

5.3	Balance of Conceptual Understanding and Procedural Fluency	14/16
5.3a	Materials explicitly state how the conceptual and procedural emphasis of the TEKS are addressed.	**0/2**
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 do not explicitly state how the conceptual and procedural emphasis of the TEKS are addressed. Material provides questions and tasks that include the use of concrete models and manipulatives, pictorial representations, and abstract representations. Materials include supports for students in connecting, creating, defining, and explaining concrete and representational models to abstract concepts is provided within the materials.

Evidence includes, but is not limited to:

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

- The lesson narratives include an overview of the lessons, the learning goals, and student-facing learning targets. Neither the learning goals nor learning targets are aligned to the concepts or procedures aligned with the TEKS. For example, in Unit 5, Lesson 5 narrative, the learning goals are "Describe how the slope and vertical intercept influence the graph of a line" and "Identify and interpret the positive vertical intercept of the graph of a linear relationship." There is no alignment, mention, or guidance about grade-level-specific TEKS.
- There is a separate TX TEKS IM document provided includes a list of the TEKS covered in each lesson. This list does not include how the materials explicitly state the conceptual and procedural emphasis of the TEKS addressed in the lesson.

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

- The materials provide opportunities for students to move through developmentally appropriate mathematical concepts. In Unit 7, Lesson 1.2 moves through all three phases of concept development. The lesson includes opportunities to move from concrete models and manipulatives to pictorial representations, and then to abstract representations.
- Pictorial and abstract representation questions and tasks are included within the materials. For example, in Unit 7, Lesson 1.2 students start with pattern blocks and move to arithmetic. The materials state, "The purpose of this activity is to use the fact that the sum of the angles all the way around a point is 360° to reason about the measure of other

angles. Students are reminded that angle measures are additive before undertaking work with complementary and supplementary angles in future lessons."

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

- In Unit 7, Lesson 1.3, the materials include support for students in defining abstract concepts. In this lesson, angles are given that have sums of 180 degrees. Students are tasked with creating a straight line using the angles of two or more shapes, explaining to their partner their creation. The materials state, "The goal of this discussion is for students to be exposed to many different examples of angle measures summing to 180°. First, instruct students to compare their answers to the first question with a partner and share their reasoning until they reach an agreement. To help students see angle c as a 180-degree angle and not just a straight line, consider using only the smaller angle on the tan rhombus blocks to measure all three figures: composing four tan rhombuses gives an angle measuring a degrees, seven rhombuses give an angle measuring b degrees, and six rhombuses give an angle measuring c degrees. Next, select previously identified students to share their solutions to the second question. For each combination of blocks that are shared, invite other students in the class to write an equation displayed for all to see that reflects the reasoning."
- Digital support is provided for the students in representing abstract thinking to more conceptual understanding. Unit 7 Lesson 1 directs students to use the Applet pattern blocks to determine the measure of angles a, b, and c. This lesson has students create the concrete, connect it to the definition, and explain how it works with the representations. The materials state, "Angle a measure 120° because it is the same size as one vertex of the yellow hexagon or two green triangles put together. Angle b measures 210° because it is the same size as one yellow hexagon and one orange square put together. Angle c measures 180° because it is the same size as three green triangles put together."

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 to address 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 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.

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 materials include videos that help develop mathematical language in the classroom. In the Unit 7 Unit Narrative Progression of Disciplinary Language Math Story Video, the teacher is given a lesson-by-lesson instruction that includes visuals, manipulatives to be used, and more language development strategies.
- The materials offer teachers a slide deck in the Glossary Terms section with the grade-level vocabulary. The teacher can find the vocabulary slides for each unit at the beginning of the unit. These glossary slides offer teachers the academic vocabulary, the definition, and a visual representation to share with the students.
- Suggestions are provided within the materials for different types of language development strategies. The Progression of Disciplinary Language guide provides suggestions for students to use their academic language through routines. The materials state that it is "designed to grow robust disciplinary language." It suggests that students use the strategy lists to critique, explain, interpret, and justify. This document provides routines and suggested prompts for students in building their mathematical language.

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

- The materials provide teachers with guidance on scaffolding student learning as they develop mathematical vocabulary. The Unit 7 math video gives teachers lesson-by-lesson instruction and includes scaffolding and supports for teachers to use.
- In Unit 3, Lesson 2, teachers are asked to display an "image of the bike wheel and the airplane propeller to discuss the relationship between radius, r, and diameter, d, of a circle: $d=2r$." Through this contextual activity with embedded guidance for teachers, students explore real-world objects and leverage academic mathematical vocabulary to support their understanding of the difference between circumference and diameter.
- The materials provide suggestions for students to use their academic language through routines designed to grow robust disciplinary language, including the needed scaffolding and support. Grade 7, Unit 7, Unit Narrative Progression of Disciplinary Language states "It suggests that students critique, explain, interpret, and justify, and it provides routines and suggested prompts for students."

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.

- Guidance is provided within the materials to help teachers support the development of mathematical conversations among students and their peers. In Unit 7, Lesson 12.1 Warm-Up, students are paired to watch a video of a person covering a file cabinet with sticky notes. In this lesson's task and the questions that follow, students are given a minute to share their observations and questions with a partner. The teacher invites a few students to share their questions with the class. If the question "How many sticky notes would it take to cover the entire cabinet?" is not mentioned, the teacher can ask if anyone wondered how many sticky notes it would take to cover the entire cabinet.
- The materials provide teachers with guidance in supporting their students as they develop mathematical language. In Unit 7, Lesson 12.1, the materials state, "As students share their strategies for determining the number of sticky notes that cover the cabinet, ask students to make connections between the various strategies. Some students will calculate the number of sticky notes that will cover each of the five faces of the cabinet and add them together. Other students may realize that opposite faces of the cabinet are congruent, so it is only necessary to calculate the area of three faces of the cabinet. Encourage students to explain why both methods result in the same answer. This will promote students' use of mathematical language as they make sense of the various methods for finding the surface area of a rectangular prism." In this activity's task and the questions that accompany it, students refine and develop their math language skills by using and hearing math language.

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.

- The materials include a How to Use These Materials section that contains The Math Process Standards Chart. The chart outlines the TEKS process standards that are integrated in the materials.
- The materials include evidence of the process standards within the Activity Narrative description of each lesson. The mathematics process standards aligned to the lesson are in parentheses at the end of the description.

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

- The How to Use These Materials section describes how process standards are incorporated and connected throughout the course. It states, "The Math Process Standards describe the types of thinking and behaviors students engage in as they are doing mathematics." For example, "Students have an opportunity to explore the tools before they are asked to use them to represent mathematical situations in later lessons."
- The online materials include evidence of a description of how process standards, or mathematical practices, are connected throughout the course. In the How to Use These Materials section of the Teacher Guide, there is a Math Process Standards Chart section that states, "Teachers will notice that some instructional routines are generally associated with certain mathematical practices." Following, there is a description of how instructional routines throughout the course align with mathematical practices. The chart also demonstrates how process standards connect throughout the course.

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

- The materials include a description for each unit of how process standards are incorporated and connected throughout the unit. In the How to Use These Materials section, there is a Math Process Standards Chart. This chart correlates the process standards present in each unit of the materials and each lesson.
- The materials include a Process Standards Integration Document for the TEKS and illustrate how the process standards build and connect throughout the units by connecting the student expectation with a narrative description of how the process standard(s) are represented in the units.

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

- The materials include a description for each unit of how process standards are incorporated in the lessons. In the How to Use These Materials section, there is a Math Process Standards Chart. This chart provides a useful overview of how the process standards are incorporated into each lesson.
- Mathematical Process Standards are found in the warm-up activity of every lesson throughout the units. In the A Typical IM Lesson section, the materials state that the warm-ups "place value on students' voices as they communicate their developing ideas, ask questions, justify their responses, and critique the reasoning of others."

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 curriculum fosters mathematical thinking and problem-solving through well-designed lessons that engage students with challenging problems and deepen their understanding of math concepts. Each lesson encourages exploration, reasoning, and resilience in problem-solving, helping students develop strong mathematical skills. For example, in Unit 2 Lesson 14.2, students create and model their own proportional and non-proportional relationships using equations, graphs, tables, and verbal descriptions.
- The launch for Unit 3 Lesson 8 requires students to think mathematically, persevere through, and make sense of a hands-on "informal derivation for the area of a circle by comparing it to the area of a parallelogram." The materials guide teachers to ask students questions such as "What polygon does the shape made of the circle pieces most resemble?", "How does the area of this new shape compare to the area of the original circle? Why?", and "If we continued cutting the wedges in half, how would that affect the new shape?"
- The materials provide students with opportunities to think and make sense of real-world mathematical scenarios. For example, in Unit 3 Lesson 4.3, the students explore decomposing a running track into two shapes, a rectangle, and two half-circles, and finding the circumference of the circle. The text states "Students familiar with the fact that this size track is referred to as a 400-meter track may be confused when their answer does not equal 400 meters." Explain that a runner does not run right on the edge of the track and possibly direct the student to look at the extension."

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

- The materials provide opportunities for group presentations that require students to solve problems in multiple ways. A communication component is required in each task, and students must state their understanding, give explanations, and justify outcomes. The text states "Teachers can develop specific questioning skills to help more students make connections and walk away from these experiences with desired mathematical learning. For example, instead of asking if anyone has any questions for the group, it is often more productive to ask a member of the class to restate their understanding of the group's findings in their own words."
- The materials provide diverse problem-solving approaches through the components. Strategies in the "Supporting Diverse Learners" section of the Teacher Guide promote recognition and appreciation of varied methods. Instructional Routines in the Course Guide consistently encourage diverse thinking. For example, the "MLR7: Compare and Connect" routine requires students to compare different mathematical approaches while explaining and justifying their various problem-solving methods.
- Embedded supports within the material provides opportunities for students to justify and explain multiple ways to solve problems. For example, in Unit 3 Lesson 11, Learning Goals explains that the student applies the circumference and area of circles to calculate the cost of a stained-glass window and explains (orally and in writing) the solution method. Then the student designs a stained-glass window that could be built for a given dollar amount, and presents (orally, in writing, and through other representations) a justification that it costs less than the limit.

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

- The curriculum engages students in actively understanding mathematics through interactive components. Instructional Routines provide structured opportunities for exploring and discussing mathematical concepts, supported by guidance in the "How To Use These Materials" section. Warm-up and Lesson Activities encourage students to actively participate in math tasks, write about their thoughts, and discuss ideas with peers and teachers, promoting collaborative learning.
- Many lessons in the materials are designed to require students to make sense of math through doing math, writing about math, and discussing math with their peers. An example of this routine is found in Unit 5 Lesson 3: "In this activity, students return to the context of height and depth to continue making sense of adding signed numbers. They examine a variety of situations, which include starting in the positives, starting in the negatives, moving away from 0, moving towards 0, crossing over 0, and ending exactly on 0." Teachers give groups of students "3 minutes of quiet work time followed by partner discussion after the first question. Then, they ask students to work on the second question and follow up with a whole-class discussion." Later, they use the Stronger and Clearer Each Time routine to draft responses with their group of peers.

- The materials provide opportunities for students to discuss with peers to make sense of their mathematics by doing, writing, and discussing. For example, in Unit 3 Lesson 11.2, students use the MLR 3: Clarify, Critique, Correct strategy. The materials state, "Present students with a flawed solution method by a fictitious student. For example, 'I learned that when you scale something by a factor, then you multiply things by that factor. If the people want a window three times as big, I multiply what the small window costs by three and get $279. So, $450 dollars is more than enough.' After giving students some quiet think time, ask, 'Why isn't $450 enough, even though $450 is more than three times the cost of the original window?' Have students work together to come up with a suggestion to fix the flawed response and possible rules for scaling areas."

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.

- The materials help teachers guide students in reflecting on their problem-solving methods. The Key Structures Document and Section Level Planning Guides provide frameworks for facilitating explanations, arguments, and justifications. Samples of questions to promote reflection, explanation, and justification include questions such as "What math tool did you find most helpful today? Why?" and "What patterns did you notice in mathematics today? Why did that pattern happen?"
- Teachers are provided excellent insight into prompting students to put their thinking into words. Students' communication may be explaining, arguing, or justifying in these activities, but sharing and reflecting are always included. For example, "If a student is presenting an explanation, play the role of not understanding and say, 'Could you help me make sense of your thinking? Could you revise your explanation?'"
- The Course Overview provides a section, Supporting Diverse Learners, that describes the five Design Principles for Promoting Mathematical Language Use and Development. Principle 2: Optimize Output focuses on guiding students to share and reflect on their problem-solving approaches by explaining, arguing, and justifying. It states, "Opportunities for students to produce output should be strategically optimized for both (a) important concepts of the unit or course, and (b) important disciplinary language functions (making generalizations, making conjectures and claims, justifying claims with evidence, explaining reasoning, critiquing the reasoning of others, and comparing approaches and representations)."

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

- The Lesson Cool-Downs in the materials offer specific prompts to guide teachers in responding to student answers, ensuring feedback is helpful. These tools help teachers

correct misunderstandings and improve students' understanding of math concepts. For example, the Cool-Down in Lesson 7.4 of Unit 3 provides a sample student response, such as "The diameter of Circle B is 3 times bigger than the diameter of Circle A, so the area of Circle B is larger than the area of Circle A. The pattern shows that the area grew quickly, so 900 is probably not large enough" and clarifies potential misconceptions such as "If students think that the diameter and area of a circle are proportional, they will likely choose C because 20·3=60 and 300·3=900."

- In the Responding to Student Thinking section, teachers are offered guidance on providing feedback to student responses. In Section A Checkpoint Task 1, teachers are instructed that "If most students struggle with coordinating the parts of the equation with the diagram, focus on the ways students see each part of the equation when students interpret hanger diagrams in the referenced lessons." It also gives them two problems that they can work through with students who are struggling.