IMRA Review Cycle 2024 Report

Publisher Name	Program Name
Texas Education Agency, Open Education Resources	*Bluebonnet Learning Secondary Mathematics Grade 8, Edition 1*
Subject	**Grade Level**
Mathematics	8

Texas Essential Knowledge and Skills (TEKS) Coverage: **100%**

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

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

IMRA Reviewers

Flags for Suitability Noncompliance **0**

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

Flags for Suitability Compliance **4**

Indicator	Count of Flags
Alignment with Public Education's Constitutional Goal, 2.1.1	**4**
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	53 / 53
2. Progress Monitoring	28 / 28
3. Supports for All Learners	32 / 32
4. Depth and Coherence of Key Concepts	23 / 23
5. Balance of Conceptual and Procedural Understanding	66 / 66
6. Productive Struggle	25 / 25

Strengths

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

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

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

- 5.4 Development of Academic Mathematical Language: Materials provide opportunities for students to develop academic mathematical language using visuals, manipulatives, and language strategies, with embedded teacher guidance on scaffolding vocabulary, syntax, and discourse, and supporting mathematical conversations to refine and use math language.
- 5.5 Process Standards Connections: Materials integrate process standards appropriately, providing descriptions of how they are incorporated and connected throughout the course, within each unit, and in each lesson.
- 6.1 Student Self-Efficacy: Materials provide opportunities for students to think mathematically, persevere through problem-solving, and make sense of mathematics, while supporting them in understanding multiple ways to solve problems and requiring them to engage with math through doing, writing, and discussion.
- 6.2 Facilitating Productive Struggle: Materials support teachers in guiding students to share and reflect on their problem-solving approaches, offering prompts and guidance for providing explanatory feedback based on student responses and anticipated misconceptions.

Challenges

- No challenges in this material

Summary

Bluebonnet Learning is a secondary mathematics 6–8 program aligned to the Texas Essential Knowledge and Skills (TEKS) and English Language Proficiency Standards (ELPS). The instructional materials offer a well-structured approach to grade 8 math instruction, featuring a detailed scope and sequence that thoughtfully outlines key concepts and knowledge across various modules/topics. Each module/topic is complemented by flexible pacing guides, accommodating a range of instructional calendars to ensure smooth implementation, regardless of the number of instructional days available. Additionally, the program includes comprehensive module/topic overviews that equip teachers with essential background knowledge, academic vocabulary, and common misconceptions, supporting effective teaching.

Campus and district instructional leaders should consider the following:

- The materials include instructional assessments and performance tasks that help identify areas where students may be struggling and provide next steps. Intervention and extension activities are available and sometimes take the form of additional practice problems rather than dedicated lessons for differentiated support. Teachers may need additional support expanding the intervention and extension resources to include more targeted activities, such as small group

lessons, which would further support teachers in addressing the needs of both struggling and advanced learners.

- The program encourages students to engage in the problem-solving model and think critically about mathematics. It includes a variety of strategies to assess and support emergent bilingual students, with embedded ELPS throughout the lessons. The structure ensures that multiple strategies are included in each lesson, supporting all students in mastering the TEKS.

Intentional Instructional Design

1.1	Course-Level Design	15/15
1.1a	Materials include a scope and sequence outlining the TEKS, ELPS, concepts, and knowledge taught in the course.	**5/5**
1.1b	Materials include suggested pacing (pacing guide/calendar) to support effective implementation for various instructional calendars (e.g., varying numbers of instructional days – 165, 180, 210).	**2/2**
1.1c	Materials include an explanation for the rationale of unit order as well as how concepts to be learned connect throughout the course.	**2/2**
1.1d	Materials include guidance, protocols, and/or templates for unit and lesson internalization.	**2/2**
1.1e	Materials include resources and guidance to support administrators and instructional coaches with implementing the materials as designed.	**4/4**

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

Evidence includes, but is not limited to:

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

- In the "Scope and Sequence" found in the "Course Level Documents" of the *Teacher Edition* (TE), the materials include two scope and sequences for 165 days and 150 days that outline how concepts and knowledge are taught throughout the year. The materials state, "The Scope and Sequence provides the lesson overview and essential ideas for each lesson. It also provides lesson pacing, suggested placement of Learning Individually days and assessment days, and the TEKS and ELPS alignment at the topic level."
- Within the Scope and Sequence table, TEKS are listed within each Topic, and then, more specifically, in the Lesson Summary, the ELPS is listed as an overview of each topic.
- The materials include a Year-at-a-Glance document that outlines the sequence of instruction by module and topic toward the end-of-year outcomes.

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 150-day "Topic Pacing Guide." The Pacing Guide includes the TEKS covered for each lesson, the number of suggested days, and general highlights of the lessons. The Module 1, Topic 2 Pacing Guide includes a pacing guide with a calendar view version to support effective implementation for various instructional calendars.
- The *TE* includes a pacing guide within each Module Overview. It includes the minutes per day pacing, the number of sessions for each topic, and the type of session. The types of sessions include learning together, assessment, and learning individually.
- The materials include a calendar option for 165 days, as seen in the Course Level Documents under the Year-at-a-Glance and Scope and Sequence tabs. The materials state, "The 150-day Topic Pacing Guides provide detailed information to accompany the 150-day Scope and Sequence. They use the 165-day Topic Pacing Guides as a base to identify reduced pacing and essential activities of each lesson."

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

- In the *TE* after the Module 1 Overview, the materials provide an explanation for how concepts to be learned connect throughout the course. In the Module 1 Overview, materials include "When will students use knowledge from Transforming Geometric Objects in future learning?" This section describes how "this module provides opportunities to build intuition and conceptual understanding of transformations, and the relationships of figures created from transformations." Materials include a module overview at the start of each module in the *TE,* which describes "the mathematics developed throughout the module, how the module connects to prior learning, and how it connects to future learning." Clear connections are made between modules and the order in which they are presented. The overview for Module 2 Topic 1 states that it "sets the foundation of algebraic study of functions and transformations by connecting what students learn in Module 1 with equations of a line." The module overview for Module 3 states it "relies on students' understanding of writing equations of lines from a graph." The overview connects the current module to future modules and explains the rationale for the sequencing, for example, "This module provides opportunities to build intuition and conceptual understanding of transformations. In Module 2, they will use translations, dilations, and reflections to transform y=x and describe the resulting graph and equation."
- In the "Content Organization" document, the materials include a Content Organization Chart, which provides a visual representation using symbols that show how skills are connected between the Modules, Topics, and grades 6 through Algebra 1. This document explains that "the arc of mathematics develops coherently, building understanding by linking concepts together through a logically sequenced and connected scope and sequence." Materials include an explanation for how concepts to be learned connect throughout the course. The Content Organization document uses icons and an icon key to explain how the concepts of modules connect throughout the course. Concepts include Relationships between sets of

numbers, Proportionality and Proportional Reasoning, Equations, Expressions, and Relationships, Data Analysis and Probability, Financial Literacy, and Geometric Relationships."

- The Content Organization Document also provides Module rationales for module/topic order for grades 6 — Algebra 1 that "explain the benefits of the sequence of Modules and Topics and highlight the connections between concepts learned throughout the course." The grade 8, Module 1 rationale states, "This course starts with Module 1, Transforming Geometric Objects, so students can use geometric concepts to develop algebraic formulas." It then goes on to give a rationale for each topic within Module 1.
- The "Lesson Summary" for each topic includes evidence of concepts being connected to other concepts learned in previous topics and lessons. For example, in Module 2, after the module overview, the materials state, "How are linear functions connected to prior learning? Students have defined the constant of proportionality and extended their understanding of proportional relationships to understand linear relationships."

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

- The materials include a "Teacher Module" and a "Topic Internalization Protocol," which offers internalization protocols that guide teachers in reading through and fully understanding how to implement the modules and topics thoroughly.
- The materials include a "Coach Module and Topic Internalization Protocol" for coaches to guide teachers through the topic and module internalization. The protocol includes steps for coaches to support teachers in their understanding of the big picture, including reflection questions, purpose, implementation, and going deeper into the content of the module.
- The materials provide guidance for each lesson in the "Lesson Overview." The "Lesson Structure and Pacing" describes which components of the lesson fit within the "Engage," "Develop," or "Demonstrate" part of the lesson. Then, the "Lesson Structure and Pacing" provides additional details for each component, offering guidance on subsequent pages, including questions to support discourse, "look-fors," differentiation strategies, common misconceptions, and just-in-time support.

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

- Program Level Resources, including the "Coach Lesson Internalization Protocol" and the Coach Module and Topic Internalization Protocols, provide guidance for instructional coaches as they support teachers with the implementation of materials. These resources include a deep dive into the lesson, module, and topic and provide guidance on implementation and going deeper. The materials also include guidance for coaches to support teachers in the review and implementation of the materials for the lesson, including considerations for scaffolding for Emergent Bilingual students, students with 504s, and Individualized Education Plans.

- The "Coach Observation Tool" offers resources to support administrators and instructional coaches in implementing the materials as designed. For example, coaches or administrators can use the Before the Classroom Visit and After the Classroom Visit observation tools to aid in teacher observations.
- The "Student Work Analysis Protocol Coach Guide," found under Program Level Resources, contains guidelines for essential questions for guidance during coaching sessions through the lens of student work and analysis.

Intentional Instructional Design

1.2	Unit-Level Design	4/4
1.2a	Materials include comprehensive unit overviews that provide the background content knowledge and academic vocabulary necessary to effectively teach the concepts in the unit.	**2/2**
1.2b	Materials contain supports for families in both Spanish and English for each unit with suggestions on supporting the progress of their student.	**2/2**

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

Evidence includes, but is not limited to:

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

- In the *Teacher Edition*, the materials include a module overview that includes a comprehensive overview and background knowledge. The materials give examples of how the current module is connected to prior learning. For example, in the Module 1 Overview, the resource states ""Transforming Geometric Objects builds on students' long-developing geometric knowledge. They know an object's name is not dependent on orientation or size, setting the foundation for similarity."
- The materials in the *Teacher Edition* include a "Topic Overview" that provides a comprehensive overview of the topic. The Topic Overview also includes an entry point for students that explains the prior knowledge learned and lists new key terms that students will be exposed to within the lessons. A paragraph titled "What is the Entry Point for Students?" discusses prior learning for this topic.
- The "Facilitation Notes" include a comprehensive guide at the beginning of each lesson that explains how teachers can use background content knowledge to effectively teach the content in that particular lesson or module/topic.

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

- The grade 8 materials contain a "Course Family Guide" in Spanish and English found in the "Course Level Documents," *Student Edition*. The Family Guide provides families with grade-level content strategies they can use to support their students. The guide also provides families with an overview of each module, including a visual representation of what the students will learn.
- In the Course Family Guide, the materials state the guide "will walk you through the research-based instructional approach, how the course is structured, how to bust math myths, using

Talking Points from the Topic Family Guide, and using the TEKS mathematical process standards to initiate discussions."

Intentional Instructional Design

1.3	Lesson-Level Design	34/34
1.3a	Materials include comprehensive, structured, detailed lesson plans that include daily objectives, questions, tasks, materials, and instructional assessments required to meet the content and language standards of the lesson.	**30/30**
1.3b	Materials include a lesson overview outlining the suggested timing for each lesson component.	**1/1**
1.3c	Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson.	**2/2**
1.3d	Materials include guidance on the effective use of lesson materials for extended practice (e.g., homework, extension, enrichment).	**1/1**

The materials include comprehensive, structured, detailed lesson plans that include daily objectives, questions, tasks, materials, and instructional assessments required to meet the content and language standards of the lesson. Materials include a lesson overview outlining the suggested timing for each lesson component. Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson. Materials include guidance on the effective use of lesson materials for extended practice.

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 "Lesson Overview" of each lesson contains a lesson plan that is comprehensive, structured, and detailed. Each lesson and lesson overview includes objectives, facilitation notes that include questions to support discourse, the activities or tasks used, materials needed, emergent bilingual tips, and how to assess student learning. These materials follow the same structure for each lesson and are detailed so that the teacher knows what to do. For example, in Module 1, Topic 1, Lesson 1 Overview, the resource states "Have students work with a partner or in a group to complete Questions 1 through 3. Share responses as a class."
- The "Topic Pacing Guide" provides teachers with an overview of each lesson, how many days the lesson should last, the learning objectives, and the materials needed for the lesson. In addition to the pacing guide, there is a calendar of days that includes which activities should be covered on each day with aligned content standards and where assessments should fall within the lesson sequence. The pacing calendar also includes materials that can be used, such as the Skills Practice.
- In each lesson overview, the content and language standards of the lesson are listed at the beginning of the lesson and aligned to the topic and essential ideas.
- The "Materials List" includes all the materials necessary to follow each of the comprehensive, structured, and detailed lesson plans.

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

- The "Volume 1 Lesson Structure and Pacing" materials suggest pacing for each lesson so that the entire course can be completed in a 165-day instructional calendar that consists of 45-minute instructional sessions.
- The materials include guidance and recommendations on required time for lessons and activities. In the Lesson Overview for each lesson, the "Lesson Structure and Pacing" outlines how many days and minutes to spend on each component of the lesson. For example, Module 1, Topic 1, Lesson 1 states the lesson is one day, with Engage activities taking 5–10 minutes, Develop activities taking 15–20 minutes, and Demonstrate activities taking 10–15 minutes. Each of the Engage, Develop, and Demonstrate components have additional clarifying details for the teacher.

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

- The materials include a Lesson Overview in which a list of materials needed is located in a gray box. The Materials List includes the materials that are required to implement the lesson as written, including optional materials used when implementing Differentiation Strategies and Emergent Bilingual student tips. The materials support the teacher to effectively deliver the lesson.
- The materials include a "Getting Started" component to the Lesson Overview that provides teachers with "Facilitation Notes" to deliver the lesson effectively. This resource includes Questions to Support Discourse, Differentiation Strategies, Common Misconceptions, student Materials Needed, and tips to get students involved by reading Essential Questions or working together.
- The materials include a 165-day pacing guide that provides teachers with an overview of each lesson, the number of days needed for the lesson, and a list of required materials. For example, the materials needed are "Problem-Solving Model Graphic Organizer, Problem-Solving Model Questions to Ask, TEKS Mathematical Process Standards, Patty Paper, Scissors Protractors, and Centimeter Ruler" for Days 1–6 of the Transforming Geometric Objects Topic.

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

- The Facilitation Notes for each lesson include guidance for teachers to extend students' practice. For example, the materials include differentiation strategies that can support students who do not understand the concepts yet while also offering additional practice for students who do. The "Differentiation Strategies" section offers Challenge Opportunities. For example, in Module 1, Topic 1, Lesson 2, the Challenge Opportunity states, "Have students create a diagonal translation and describe the movement in terms of both vertical and horizontal movement."
- The "Topic Family Guide" provides guidance for families on how to further support their students through additional practice at home. The materials contain questions and talking

points that parents can work through with their students to extend this learning and understanding.

- The materials provide teachers with suggestions for additional practice after students practice the skill. For example, in Module 1, Topic 1, Lesson 1.2, the side margin suggests "Question 1 presents an opportunity to assess students' understanding of the essential content of the lesson. Use student responses to determine when to schedule Learning Individually Days. To provide additional practice with congruent figures, assign Skills Practice Set A for this lesson."

Progress Monitoring

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

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

Evidence includes, but is not limited to:

Materials include a variety of instructional assessments at the unit and lesson level (including diagnostic, formative, and summative) that vary in types of tasks and questions.

- The "Facilitating Student Learning" of the *Course and Implementation Guide* includes evidence from the materials that state that teachers use the "prepare section of the assignment from the previous lesson" as a "diagnostic tool, whether as a warm-up or an exit ticket, to assess whether your students are ready for new learning." In Module 1, Topic 1, Lesson 1 Assignment, the materials state, "Prepare: Draw all lines of symmetry for each letter."
- The materials include a Topic Self-Reflection Tool that "allows students to reflect on their understanding of the concepts and skills...at the beginning, middle, and end of the topic so they can track and monitor their progress and growth."
- The materials include formative assessments that vary in types of tasks and questions at the module/topic and lesson level. The *Course and Implementation Guide* lists multiple options for Formative Assessments, including the Essential Question that students return to and answer the question "to demonstrate their learning," Questions to Support Discourse, Stamp the Learning, and Talk the Talk. For example, in Module 1, Topic 1, Lesson 1 Overview, the materials offer "What strategies did you use to categorize your shapes?" and "How are your

categories similar to or different from your classmates' categories?" as Probing Questions to Support Discourse. The materials also include multiple practice opportunities in the Skills Practice. In Module 1 Overview, Topic 3 states that the Targeted Skills Practice should be used for Line and Angle Relationships. The "Lesson and Facilitation Notes" include guidance on which questions can be used to assess students' understanding of the essential content of the lesson. These text boxes guide teachers to "use student responses to determine when to schedule Learning Individually Days." The materials include Performance Tasks that "students can complete after certain modules/topics. These tasks cover selected priority TEKS content from the course. You can use the Performance Task as either a formative or summative assessment."

The materials include an "End of Topic" assessment within the *Assessments Teacher Edition* that assesses students on the content learned within a topic. The End of Topic assessments include various question types, including multiple-choice, constructed response, short answer, multi-select, and match-table-grids. The materials state, "There are many problem types that students will encounter on digital assessments: multiple choice, multi-select, text entry/equation editor, graphing, inline choice, hot spot, drag and drop, and match table grid." The materials also include three "Performance Tasks" located in the *Assessments Teacher Edition* that use real-world scenarios to assess students over content within a module. The performance task instructions guide teachers on when to use the performance tasks. For example, the "Proportional Relationships" performance task suggests using the task "any time after Module 2, Topic 1."

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

- The materials include Prepare, Stamp the Learning, Student Discourse, and Talk the Talk as types of formative assessment. Summative assessments include "End-of-Topic Assessments" and "Performance Assessments." The individual definitions are provided at the beginning of the *Teacher Edition* assessment text. The *TE* states, in the "Summative Assessments" section, "End of Topic Assessments are provided to measure student performance on a denoted set of standards." Under Performance Tasks, the materials state, "These tasks cover selected priority TEKS content from the course." Under the "Comprehensive Assessment" section, the materials state, "Assessment is an arc and not a one-time event. It is a regular part of the instructional cycle. Ongoing formative assessment underlies the learning experience, driving real-time adjustments, next steps, insights, and measurements."
- Each form of assessment has a purpose, as described in the introduction of the Assessment guide. The materials state, "End of Topic Assessments are provided to measure student performance on a clearly denoted set of standards. There are three problem types students will encounter on the assessment: multiple-choice, multi-select, and open-response questions. These questions are thoughtfully designed to prepare students for digitally enhanced standardized tests." The materials include the intended purpose for the types of instructional assessments. The *Teacher Edition* states, "At the end of the lesson, students return to and answer the Essential Question to demonstrate their learning. Use student responses to the Essential Question as data to drive your instructional practice and decision making." In the Summative Assessments section, the materials state, "These questions are

thoughtfully designed to prepare students for digitally enhanced standardized tests" and "Use the data from scoring the assessment to plan the next steps for instruction." Finally, in the Performance Tasks section, the materials state, "You can use the Performance Task as either a formative or summative assessment. These tasks include a rubric that you can utilize to assess individual or class depth of understanding as aligned to the TEKS" and "After students complete the Performance Task, have them reflect on their understanding and performance by revisiting the Topic Self-Reflection from the corresponding topic."

- Each lesson included in the *Teacher Edition* consists of additional guidance for teachers regarding opportunities to assess students' understanding of the essential content of the lesson. The materials include an explanation of which practice problems can be used as formative assessment and where additional problems can be found. For example, in Module 1, Topic 1, Lesson 3, there is a box that states," "Question 3 presents an opportunity to assess students' understanding of the essential content of the lesson. Use student responses to determine when to schedule Learning Individually Days. To provide additional practice with the translation of figures, assign Skills Practice Set A for this lesson."

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

- The "Topic Pacing Guide", along with supports within each lesson, consists of guidance on how to accurately administer instructional assessments with the inclusion of individual learning days before such assessments. The materials included in the "Implementation Suggestions for the End of Topic Assessment" section of the *Assessments Teacher Edition* provides teachers with suggestions on how to implement these assessments. For example, the suggestions state, "The Grade 8 End of Topic Assessments are designed for completion without the use of a calculator. Each assessment is designed so students can complete the assessment in 45 minutes."
- The materials include an "Assessment Summary" in the Module Overview that lists when each End of Topic Assessment should be given. The materials include teacher guidance to ensure consistent administration of instructional assessments. The *Grade 8 Assessment Guide* states implementation suggestions for the End of Topic assessments. The materials state, "After completion of the assessment, provide students with the Assessment Reflection document. Before student completion of an Assessment Reflection, discuss the intent of the tool with students. Have students refer to the corresponding Topic Self-Reflection document when completing the Assessment Reflection."
- The grade 8 material contains a rubric for grading topic assessments and performance activities to ensure consistent grading and feedback for students. The *Assessments Teacher Edition* states, "For consistent evaluation and scoring, follow the Assessment Scoring Guide. Each question in the assessment is worth 1 or 2 points. The guide includes the TEKS for each question, the point value, and scoring guidance. Use the data from scoring the assessment to plan the next steps for instruction." Each assessment has an answer key or sample answer to ensure accuracy while grading. The materials also include a Question & Test Interoperability report. This report gives the rationale for every End of Topic Assessment answer choice, which ensures accuracy as the teacher determines the next steps.

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

- The "Comprehensive Assessment" located in the *Assessments Teacher Edition* includes diagnostic assessments that are aligned to the TEKS and objectives of the lesson by allowing teachers to use the Questions to Support Discourse to gauge what students already know before learning new content. The Prepare section of the Lesson Assignment can also act as a diagnostic assessment and is aligned with the TEKS and objectives of the next lesson. For example, Module 1, Topic 1, Lesson 2 Assignment Prepare includes a coordinate grid with a star drawn on it and states, "Identify the ordered pairs associated with each of the five points of the star." This question is followed by Lesson 3's Translations of Figures on the Coordinate Plane, which aligns to TEKS 8.10A (orientation of transformations on a coordinate plane) and 8.10C (explain the effects of applied movements to transformations on a coordinate plane). The box in Module 1, Topic 1, Lesson 2 practice problem states, "Question 9 presents an opportunity to assess students' understanding of the essential content of the lesson. Use student responses to determine when to schedule Learning Individually Days. To provide additional practice with rigid motion transformations, assign Skills Practice Set A for this lesson." This statement provides evidence of a pre-assessment driving the instructional days for the module/topic.
- The materials include formative assessments that are aligned to the TEKS and objectives through the "Demonstrate" piece of each lesson. This evidence consists of Talk the Talk activities and Skills Practice. The materials also include Skills Practice, which is a formative assessment aligned to the TEKS and objectives of the lessons. Module 1, Topic 1, Skills Practice A states, "Consider the figures. Make a conjecture about which figures are congruent to the original figure shown in the center. Then, use patty paper to investigate your conjecture. Finally, justify your conjecture by stating how you can move from the original figure to each congruent figure by sliding, flipping, or spinning the original figure." This question aligns with TEKS 8.10A, "generalize the properties of orientation and congruence of rotations, reflections, translations, and dilations of two-dimensional shapes on a coordinate plane."
- The materials include end-of-topic assessments, which are summative and aligned to the TEKS and objectives of the lessons. The End of Topic Scoring Guide, found immediately after the assessment, indicates each SE associated with each question. The *Assessments Teacher Edition* consists of each of these assessments along with rationales.

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

- In the *Grade 6 Assessments Teacher Edition*, assessment questions vary in complexity, for example in the End of Topic assessment Module 1 Topic 3, questions one and two are at the understanding and application level, respectively, of Bloom's Taxonomy while assessing the same TEKS.
- In Module 1, Topic 4, the assessment evaluates TEKS 6.4B on five different occasions at multiple levels of complexity. It includes performance and summative assessments, multiple-choice questions, multiple-select text entry/equation editor, inline choice, match-table grids, drag & drop, and short-answer questions, all using various levels of Bloom's Taxonomy. The questions within the End of Topic Assessments also vary in complexity. For example, in

Module 2, Topic 3 Assessment, questions range from multiple-choice answers to open-ended questions where students must explain their reasoning.

- The assessments include items at varying levels of complexity. For example, Module 1, Topic 1, End of Topic Assessment, Questions 9 and 11 assess 6.3E (multiply and divide positive rational numbers). Question 9 asks students to multiply a fraction by a mixed number, which is level 1, Remembering, in Bloom's Taxonomy. Question 11 asks students to interpret a real-world scenario, determine it is a division problem, and solve the problem, which is level 2, Understanding, in Bloom's Taxonomy.

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**

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

Evidence includes, but is not limited to:

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

- The grade 8 "Question & Test Interoperability" (QTI) guides responding to student performance. The QTI includes the rationale for each answer choice in the "End of Topic Assessment." The wrong answer rationale guides the teacher as to misconceptions students may have.
- The grade 8 Assessments Teacher Edition guides interpreting student performance. For example, the Module 1, Topic 1, End of Topic Assessment Scoring Guide states that "to support students" with questions 2 and 6, they should "Review Congruence in Motion, use Skills Practice Sets I.A, III.A, IV.A, and V.A for additional practice, review Lesson 2 Assignment Practice Question 2." The "Performance Tasks" within the assessments include rubrics for scoring and interpreting student performance. The grade 8 materials contain an assessment reflection tool to guide feedback. For example, in Module 2, Topic 2, "The student correctly determines both the slope and the y-intercept (2 points); The student correctly determines either the slope or the y-intercept, but not both (1 point); The student does not correctly determine either value (0 points)."
- The materials include a "Scoring Guide" that guides teachers on how to score each question on the assessment and a "Response to Student Performance" that provides teachers with reteach and practice suggestions to support each skill. For example, in Module 2, Topic 1, the Scoring Guide suggests that for students who missed question 3, teachers "Review Connecting Similar Triangles and Slope of a Line with students. Use Skills Practice Set III.A for additional practice. Review Lesson 3 Assignment Practice Questions 1 and 2."
- The materials include the "Teacher-Student Work Analysis Protocol," which guides responses to student performance. This tool consists of insight to allow teachers to analyze student work and scores to respond to student performance effectively.

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

- The "Teacher-Student Work Analysis Protocol" includes materials that guide the use of included tasks and activities to respond to student trends in performance on assessments. For example, the "Discuss and Analyze" portion asks teachers to "identify 1-2 major trends for each category" and to "discuss someone's examples or trends across classrooms for a category." It also helps teachers "analyze student work samples individually or collaboratively to understand students' thinking, identifying strengths and progress toward proficiency, and determining gaps in skills and knowledge." The protocol includes a step that helps teachers identify major trends within each category. The material states that "The protocol also supports the creation of a plan to take targeted action to support students' development of skills and knowledge in future instruction."
- The "Coach Student Work Analysis Protocol" includes materials that guide the use of included tasks and activities to respond to student trends in performance on assessments. For example, the Discuss and Analyze portion asks teachers to "identify 1-2 major trends for each category" and to "discuss someone's examples or trends across classrooms for a category."
- The materials include the QTI that provides the rationale for incorrect answers and distractors for the End of Topic Assessments. The rationale for incorrect answers guides the teacher as to any misconceptions students may have.

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

- The materials include a "Topic Self-Reflection" at the end of a topic within the *Teacher Edition*. The Topic Self-Reflection provides students with reflection statements regarding their learning at the beginning, middle, and end of the topic. The *Teacher Edition* materials include tools for students to track their growth through self-reflection at the end of each topic through a self-rating system based on the objective and TEKS of the course. For example, the materials ask the student to rate how comfortable they are "using the mean absolute deviation as a measure of variability to describe how data are spread out around the mean of the data set" by using a rating system as follows: "1 represents the skill is new to me, 2 represents I am building proficiency of the skill, and 3 represents I have demonstrated proficiency of the skill."
- The materials include tools for students to track their own progress and growth. The Demonstrate portion of lessons includes "Talk the Talks to monitor their progress toward demonstrating proficiency of the objectives." For example, "In this activity, students demonstrate what they have learned by solving equations with variables on each side."
- The "Assessment Reflection" is a tool for students to track their own progress and growth. This material provides guidance for students to remember and reflect on what occurred and how they can plan for what "they will do differently for the next time that [they] prepare for and take an assessment." The Assessment Reflection takes students through questions like, "What went well?", "What did not go as planned?", "How will you build on the things that went well?", and "What are some things you can do between now and the next assessment to improve the things that did not go as planned?"

Supports for All Learners

3.1	Differentiation and Scaffolds	8/8
3.1a	Materials include teacher guidance for differentiated instruction, activities, and/or paired (scaffolded) lessons for students who have not yet reached proficiency on grade-level content and skills.	**3/3**
3.1b	Materials include pre-teaching or embedded supports for unfamiliar vocabulary and references in text (e.g., figurative language, idioms, academic language). (T/S)	**2/2**
3.1c	Materials include teacher guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skills.	**3/3**

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

Evidence includes, but is not limited to:

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

- Materials include teacher guidance for differentiated instruction and/or scaffolded lesson for students. The "Facilitation Notes" include differentiation strategies in the "Engage, Develop, and Demonstrate" component of the lesson plan. These strategies include "Just in Time Support," which supports the students falling behind grade level. The Just in Time Support materials in Module 1, Topic 1, Lesson 4, Facilitation Notes state "Have students highlight or trace each axis in a different color to visualize which axis to reflect across." This example shows how the materials provide teacher guidance for differentiated instruction for students who have not yet reached proficiency on grade-level content and skills. The Just in Time Support materials in Module 1, Topic 2, Lesson 1, Facilitation Notes state "Assign each student and their partner either Question 1 or Question 2. Then, have pairs explain their work to another pair of students who were assigned the other question." This example shows how the materials provide teacher guidance for scaffolding the lesson for students who have not yet reached proficiency on grade-level content and skills. These strategies include Just in Time Support, which supports the students falling behind grade level. The Just in Time Support materials state "Have students highlight or trace each axis in a different color to visualize which axis to reflect across."
- The Facilitation Notes include "Questions to Support Discourse and Common Misconceptions," which can be alongside the Differentiation Strategies or in isolation to differentiation both instruction and/or activities. In Module 1, Topic 2, Lesson 1, Facilitation

Notes, the Questions to Support Discourse includes three different sets of questions: "Gathering, Probing, and Seeing Structure." There is also a "Common Misconception" that states "Students often think that an enlarged figure has larger angles. Use a right angle to clarify their misunderstanding. For example, draw two similar right triangles. Point out that although the sides are longer in one triangle, the 90° angle remains the same size."

- The Grade 8 materials have clearly labeled differentiation for students who have yet to reach proficiency and are embedded within the lesson. An example is the "Access for All" support during the instructional time where the materials state "Differentiation Strategies Access for All Materials Needed: Poster Paper, Colored Pencils. Do not tell students how to go about the problem; they need to figure out in their group what they need to use to solve the problem. Students should use the graph to determine who is the winner of the race before organizing their information on the table. Groups may prefer to complete their graphs on poster paper. Each person should graph their line/driver. Colored pencils would be helpful for the graphs."
- Materials include teacher guidance for differentiated activities for students who have not yet demonstrated proficiency in grade-level content and skills. Teacher guidance in the Grade 8 Assessments Guide includes "us[ing] the data from scoring the [End of Topic] assessment to plan the next steps for instruction." The "Scoring Assessment Guide" includes a "Response to Student Performance" section. The response includes suggestions for supporting students or challenging students using "Skills Practice Sets." For example, the Response to Student Performance in Module 1, Topic 1 End of Topic Assessment. suggests that teachers support students that have not shown mastery in TEKS 8.10A through incorrect responses in questions 2 and 6, by "Review[ing] Congruence in Motion; Use[ing] Skills Practice Sets I.A, III.A, IV.A, and V.A for additional practice; [and] Review[ing] Lesson 2 Assignment Practice Question 2".
- The margin notes in the lessons include when to use Skills Practice Sets for additional practice. For example, Module 1, Topic 1, Lesson 1, states "Question 1 presents an opportunity to assess students' understanding of the essential content of the lesson. Use student responses to determine when to schedule Learning Individually Days. To provide additional practice with congruent figures, assign Skills Practice Set A for this lesson."
- Teachers are provided with guidance for differentiated activities and scaffolded lessons on "Learning Individually Days" to support students who need extra help with grade-level content and skills. In the "Skills Practice Overview," teachers are instructed to assign specific problem sets to the whole class, small groups, or individual students based on data. Activities within the lesson correspond to the problem sets and are identified in the Skills Practice Sets alignment notes for teachers. The provided "Skills Practice Outline" in this guide helps teachers choose problem sets and problems strategically, allowing for personalized learning to meet student needs.

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

- Materials include pre-teaching or embedded supports for unfamiliar vocabulary in text. Each "Lesson Overview" includes new key terms that aid teachers and parents in introducing new vocabulary to students. For example, "EB Student Tips" include ways that teachers support students by aiding students in differentiating between unfamiliar or confusing terms

introduced within a lesson. For example, the EB Student Tip for Intermediate and higher proficiency levels in Module 1, Topic 1, Lesson 2 states "Students may confuse the terms transformation and translation. Use the graphic organizer suggested in the previous activity to resolve this issue." Another EB Student tip for "Beginning" and "Intermediate" proficiency levels states "Ensure that students understand the meaning of logo, a symbol that a company uses to identify itself on products. Provide examples of widely recognized logos from globally prominent companies to help students understand the concept."

- The grade 8 materials have references for prerequisite skills which are identified in the Skills Practice Sets, which state "Prerequisite for TEKS' is the label for problem sets in which the necessary skills to achieve proficiency are foundational, aligned to the content of the corresponding student lesson, and scaffolded to the skills aligned to the grade-level TEKS." For example, In Module 5, Topic 1, Sets I.A, I.B, and I.C are labeled as Prerequisite for TEKS 8.2A. These problem set uses the mathematical vocabulary of irrational, rational, positive numbers, repeating decimals, integers, exponents, radicals, mixed numbers, natural numbers, terminating decimals, and improper fractions. This set can be used to pre-teach the vocabulary before Set III.C that covers TEKS 8.2A, 8.2B, and 8.2D, which ask students to use a set of numbers to answer a series of questions. Two examples of these questions are "list the positive numbers" and "list the irrational numbers."
- The materials include support for unfamiliar references in the text. For example, Module 1, Topic 2, Lesson 1 describes a *dilation*. The "Worked Example" shows images of a dilation and how the scale factor can be expressed. "Stamp the Learning," in the margin next to the images and description of *dilation*, provides the teacher with guidance to have the students "restate or explain the information in their own words." The cartoon character thought bubble states, "The image of a dilation can also be called a *scale drawing."*

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 provide opportunities for differentiated instruction in the Facilitation Notes. The Differentiation Strategies section offers "Challenge Opportunities." For example, in Module 1, Topic 1, Lesson 2, the Challenge Opportunity states, "Have students create a diagonal translation and describe the movement in terms of both vertical and horizontal movement."
- Materials include teacher guidance for enrichment activities for students who demonstrate proficiency in grade-level content and skill. Performance tasks are included to provide enrichment opportunities for students. The "Performance Task Overview" also includes guidance for when to give the task and the TEKS assessed on each task. Materials provide teacher guidance for extension activities in the *Course and Implementation Guide*. Guidance in the differentiation subheading states "to support gifted and talented students or any student who is showing proficiency in a standard and is ready for a challenge and/or extension to differentiate instruction by: using embedded Differentiation Strategies labeled as Challenge Opportunities; utilizing the Extension section of the Skills Practice; scaffolding up the academic glossary by encouraging students to apply the terminology across disciplines and real-world applications; [and] using alternative grouping strategies"

- Materials include teacher guidance for extension activities for students who demonstrate proficiency in grade-level content and skill. The "Assessment Scoring Guide - Response to Student Performance" includes recommendations for teachers to challenge students. Each of these challenges asks teachers to "extend student knowledge."
- The *Grade 8 Assessments Teacher Edition* includes guidance for interpreting student performance. For example, Module 1, Topic 1, "End of Topic Assessment Scoring Guide" states "to challenge students" with questions 1, 3, 4, 7–10, teachers should "Extend student knowledge with the Skills Practice Extension." The materials include guidance for enrichment activities. The "Performance Tasks," after certain modules/topics, "cover selected priority TEKS content from the course. These tasks include a rubric that you can utilize to assess individual or class depth of understanding as aligned to the TEKS." Materials include teacher guidance for enrichment activities for students who have demonstrated proficiency in grade-level content and skills. The Grade 8 Skills Practice Guide encourages teachers to consider using "some students that have achieved proficiency of the skills for a particular lesson or have already completed the Skills Practice assigned to them, as leaders of a specific group and/or station to help support their peers. This strategy helps students who need extra support while also developing the capacity of the students who provide assistance."

Supports for All Learners

3.2	Instructional Methods	13/13
3.2a	Materials include prompts and guidance to support the teacher in modeling, explaining, and communicating the concept(s) to be learned explicitly (directly).	**6/6**
3.2b	Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches.	**4/4**
3.2c	Materials support multiple types of practice (e.g., guided, independent, collaborative) and include guidance for teachers and recommended structures (e.g., whole group, small group, individual) to support effective implementation.	**3/3**

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

Evidence includes, but is not limited to:

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

- The materials include a "Modeling the Moment" prompt that provides teachers with guidance on how to model the concepts. For example, in Module 1, Topic 1, Lesson 5, "Modeling the Moment," states, "Provide students with the Problem-Solving Model Graphic Organizer. For Question 1, have students work in pairs, ask themselves the questions from the first step of the model, and share their reasoning. Complete the remaining steps in the graphic organizer together as a class. Have students work in pairs and use the problem-solving model to complete Questions 2–4." The materials also include "Chunking the Activity" prompts, which guide teachers' explicit instruction through the lesson. For example, In Module 1, Topic 1, Lesson 5, the "Chunking the Activity" prompt suggests, "Read and discuss the introduction. Group students to complete the activity. Share and summarize."
- The materials contain prompts to support the teacher in explaining the concepts. The "Lesson Overview" contains "Questions to Support Discourse." The "Facilitation Notes" include prompts for the teacher in the delivery of the lesson. For example, Module 1, Topic 2, Lesson 3, Facilitation Notes state, "Ask a student to read the introduction aloud. Discuss as a class. Have students work with a partner or in a group to complete Questions 1 through 6. Share responses as a class." The Facilitation Notes for "Talk the Talk" also include Questions to Support Discourse. "Talk the Talk: Summing Up Similar Figures" offers the Seeing Structure Question, "What is true about the corresponding side lengths of congruent figures?"
- The materials include guidance to support the teacher in communicating the concepts. The Lesson Overview contains "Look Fors," "Common Misconceptions," and Questions to Support Discourse. The Facilitation Notes include guidance for lesson delivery. For example, Module 1,

Topic 2, Lesson 2, Facilitation Notes state, "Corresponding angle measures and ratios of corresponding side lengths are used to verify similarity. Students explore the effects of dilations on the perimeter and perimeter of the original figure." Lessons contain margin notes, like Chunking the Activity, which guide the teacher in thoroughly communicating the lesson. For example, some of the "chunks" in Module 1, Topic 2, Lesson 2 include "Read and discuss the directions. Group students to complete the activity. Share and summarize." The materials also include "Modeling the Moment" in the side margins to assist teachers with modeling. Modeling the Moment in Module 1, Topic 2, Lesson 2 states, "Provide students with the Problem-Solving Model Graphic Organizer. For Question 4, have students work in pairs, ask each other the *Questions to Ask* from the first two steps of their model, and share their reasoning."

- Materials provide prompts and guidance to help teachers demonstrate concepts clearly. In the *Teacher Edition*, the teacher margin notes provide reminders and guidance, while the "Stamp the Learning" notes emphasize the value of worked examples and definitions for explicit instruction. The Facilitation Notes offer prompts for questions to support student discussion. For example, in Module 1, Topic 1, Lesson 6, the Stamp the Learning note states, "The definitions and Worked Example provides an opportunity for explicit instruction. Interact with this information as a class and encourage students to restate or explain the information in their own words" and includes a "Worked Example," along with a follow-up question.

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

- The grade 8 materials include diverse instructional strategies to facilitate lesson delivery, including Talk the Talk, various activities with integrated differentiation, and skills practice sessions. For example, Module 2, Topic 1, Lesson 1, includes four activities. Each activity includes facilitation notes, Stamp the Learning prompts, instructional models, common student misconceptions, and indicators to observe in student work and discourse. The Facilitation Notes describe small group discussion using Activity 1.1, stating, "Have students work with a partner or in a group to complete Questions 1 through 4. Share responses as a class."
- Materials include teacher guidance and recommendations for effective lesson facilitation using a variety of instructional approaches. The Facilitation Notes within the Lesson Overview include guidance for teachers to effectively implement and facilitate the lessons. This guidance is evident through the use of Questions to Support Discourse. Within the lesson itself, the materials provide "EB Student Tips" margin notes "to support students with varying levels of English language proficiency" and "Optimizing Learning" margin notes "to indicate opportunities for purposeful learning. These strategies provide access to the course content for all learners." "Skills Practice" alignment margin notes "indicate the section(s) of Skills Practice that align to activities within the lessons." Modeling the Moment margin notes "provide instructional guidance surrounding when and how to utilize the Problem-Solving Model Graphic Organizer."
- The "Instructional Approach" section of the text contains the overall approach to the lesson cycle. This begins with the Engage (Getting Started), Develop (Activities), and then the Talk the

Talk (Demonstrate). Under each subheading is a list of associated activities that the teacher could expect to see within the lesson.

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.

- Materials support multiple types of practice to support effective implementation. Collaborative practice is represented in each lesson throughout the course. The *Course and Implementation Guide* states, "Collaborative problem solving encourages an interactive instructional model. The collaborative activities intentionally promote active dialogue centered on structured activities," and grouping strategies are highlighted throughout the book. Both 'Learning Together' and 'Learning Individually' days are a part of each module for students to work with the teacher in a guided practice activity and independently or in groups on additional practice assignments.
- The Facilitation Notes include recommended structures, such as grouping students and multiple types of practice, to support effective implementation. For example, the materials include guidance on which questions students should work on independently, with a partner, or with a small group and how they should communicate and collaborate as a class.
- The materials include a Skills Practice resource. The Skills Practice is used on "Learning Individually" days, which are scheduled within a topic by the teacher at their discretion. There are suggestions for when to schedule these days in the "Topic Overviews." Generally, the Learning Individually days are recommended after every two to four days of "Learning Together" instruction. The goal is to target skills that students still need to practice and develop to achieve proficiency following a lesson or set of lessons. This allows teachers to provide just-in-time learning and intervention. Each section of Skills Practice includes "Topic Practice," "Extension," and "Spaced Practice." The Topic Practice problem sets can contain topics aligned and/or interleaved practice sets that correspond to the lesson content. While most problem sets meet the TEKS on grade level, similar to the corresponding lesson, some problem sets incorporate prerequisite skills, while others provide opportunities for extension. For this reason, not all problems need to be assigned to all students. The teacher intentionally assigns specific problem sets to the class, small groups of students, or individual students based on data.
- The materials provide guidance and recommended structures to support effective implementation. In the *Assessments Teacher Edition*, the materials state, "You may implement the Performance Task as a formative assessment by completing the tasks in collaborative groups." The materials go on to make suggestions about effective implementation for the performance task. When the teacher chooses to implement a "Performance Task" as a formative assessment, they use the provided facilitation notes for suggested implementation strategies. When implementing the Performance Task as a formative assessment, two instructional days are suggested for the task. On the first day, groups complete the task. On the second day, groups present the strategies they used to complete the task and teachers facilitate a collaborative discussion. The teacher can also use the Performance Task as a summative assessment. When using the Performance Task as a

summative assessment, students complete the task individually. In this case, there is only one day suggested for completion of the task.

Supports for All Learners

3.3	Supports for Emergent Bilingual Students	11/11
3.3a	Materials include teacher guidance on providing linguistic accommodations for various levels of language proficiency [as defined by the English Language Proficiency Standards (ELPS)], which are designed to engage students in using increasingly more academic language.	**2/2**
3.3b	Materials include implementation guidance to support teachers in effectively using the materials in state-approved bilingual/ESL programs.	**1/1**
3.3c	Materials include embedded guidance for teachers to support emergent bilingual students in developing academic vocabulary, increasing comprehension, building background knowledge, and making cross-linguistic connections through oral and written discourse.	**8/8**
3.3d	If designed for dual language immersion (DLI) programs, materials include resources that outline opportunities to address metalinguistic transfer from English to the partner language.	**Not scored**

The materials include teacher guidance on providing linguistic accommodations for various levels of language proficiency [as defined by the English Language Proficiency Standards (ELPS)], which are designed to engage students in using increasingly more academic language. Materials include implementation guidance to support teachers in effectively using the materials in state-approved bilingual/ESL programs. Materials include embedded guidance for teachers to support emergent bilingual students in developing academic vocabulary, increasing comprehension, building background knowledge, and making cross-linguistic connections through oral and written discourse.

Evidence includes, but is not limited to:

Materials include teacher guidance on providing linguistic accommodations for various levels of language proficiency [as defined by the English Language Proficiency Standards (ELPS)], which are designed to engage students in using increasingly more academic language.

- Within the lessons, "EB Student Tips" are included as dedicated sections in the lesson plans for emergent bilingual (EB) students. EB Student Tips include guidance on providing linguistic accommodations for various levels of language proficiency. In Module 1, Topic 2, Lesson 1, the EB Student Tip is for all proficiency levels, stating, "Beginning: Use visual aids showing different rectangles, including squares and non-squares. Highlight that while all these shapes are rectangles, only those with the same proportions (like all squares) are mathematically *similar*. Encourage students to identify similar and non-similar shapes by pointing and focusing on the mathematical criteria for similarity rather than everyday usage. Intermediate: Offer sentence frames: 'In mathematics, these figures are *similar* because they have the same _____.' Students can use terms like *shape, angles,* or *proportions* to describe why certain figures are similar. Advanced/Advanced High: Invite advanced high students to explore the concept further, perhaps by creating examples of similar and non-similar figures. They can explain why these figures are considered similar or not in mathematical terms, focusing on

properties like shape and proportion." EB Student Tips also provide teachers with suggestions for accommodations such as sentence frames, word banks, writing prompts, and visuals.

- The materials include teacher guidance on providing linguistic accommodations for various levels of language proficiency. The instructional materials seek to support EB students as they develop skills in both mathematics and language. The "Topic Overview" includes cognates for new key terms, when applicable. It also includes guidance on how to use cognates to support emergent bilingual students. For example, in Module 1, Topic 1 Overview, the "New Key Terms" include *plane* and its Spanish cognate *plano* and *image* with its cognate *imagen*. In the "How can you use cognates to support EB students?" section of the Overview, it states, "Encourage students to keep a bilingual math journal, recording reflections and background knowledge on new topics, in either written or verbal format, with added visuals for clarity. Incorporate journal excerpts into a shared word wall or digital bilingual glossary, with a focus on highlighting cognates."
- The "Topic Family Guides," available in both English and Spanish, break down new academic language students will learn while containing geometric and graphic design elements. The teacher can use this as guidance for building word walls or similar products.

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

- The materials include implementation guidance to support teachers in the effective use of materials in state-approved bilingual/ESL programs within the Topic Overview paragraph titled "How can you use cognates to support EB students." This section also includes New Key Terms with the Spanish term. The Module 1, Topic 1 Overview states, "Cognates are provided for new key terms when applicable. Encourage students to keep a bilingual math journal, recording reflections and background knowledge on new topics in either written or verbal format, with added visuals for clarity. Incorporate journal excerpts into a shared word wall or digital bilingual glossary, with a focus on highlighting cognates."
- The *Course and Implementation Guide* consists of guidance about ELPS addressed by stating, "Highlighted English Language Proficiency Standards for each lesson are listed. As you plan, consider these ELPS and determine the instructional strategies that you will use to meet these ELPS." Within the grade 8 "Lesson Overviews," ELPS covered are listed with specificity. An example of this is in Module 2, Topic 1, Lesson 1. The ELPS listed to be covered are (1) Learning Strategies H (2) Listening D & I, and (3) Speaking G.
- The *Program Implementation Guide* provides an overview of the embedded supports for teachers in effectively using the materials to support students in bilingual and ESL programs. It also includes a Strategies for Supporting EB Students in Each Lesson Phase section, which provides guidance on using EB/ESL strategies throughout the different lesson phases. The guide specifically discusses how to support each student at their level of English proficiency. The materials include EB Student Tips and guidance on how to implement those tips. The *Course and Implementation Guide* states that the tips "provide additional scaffolds to support this population." The EB Student Tips include guidance for all proficiency levels.

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 materials include embedded guidance for teachers to support EB students in developing academic vocabulary, increasing comprehension, building background knowledge, and making cross-linguistic connections through oral and written discourse. "Talk the Talk," at the end of each lesson, includes activities to promote student discourse. Students work with partners to discuss and answer questions, followed by sharing and summarizing. The "Chunking the Activity" margin notes guide the teacher in the implementation of Talk the Talk. For example, Module 1, Topic 1, Lesson 5, states, "Read and discuss the directions. Group students to complete the activity. Share and summarize. Have students answer the Essential Question on the lesson opener." The lesson "Facilitation Notes" include "look fors" such as vocabulary, misconceptions, and questions to support discourse.
- The materials include various strategies for building vocabulary, background knowledge, and language proficiency, reinforcing previously learned vocabulary and concepts to promote retention through oral and written discourses through the EB Student Tips. The EB Student Tips routinely include vocabulary supports such as flashcards, cognates, real-world connections, and oral and written activities. The materials offer opportunities for EB students to develop proficiency in academic language through the Talk the Talk activities. For example, to develop oral proficiency, the materials state, "In this activity, students describe the process of dilating figures with the origin as the center and how that affects the coordinates of the dilated figure. Have students work with a partner or in a group to complete Questions 1 and 2. Share responses as a class."
  The materials include academic vocabulary at the end of both the *Student* and *Teacher Editions*. When appropriate, the definitions contain pictorial or analytical representations of key terms. One example of a written and oral term example is "same-side interior angles: Same-side interior angles are formed when a transversal intersects two other lines. These angle pairs are on the same side of the transversal and are between the other two lines." This definition is followed by a pictorial representation of the definition that indicates the angles in question."

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 (DLI) programs. However, they do include implementation guidance to support teachers and students through the "Topic Overview" paragraph titled "How can you use cognates to support EB students?" This section includes new terms with the Spanish term. Cognates are provided for new key terms when applicable. Teachers are guided to encourage students to keep a bilingual math journal and record reflections and background knowledge on new topics with visuals for clarity.

Depth and Coherence of Key Concepts

4.1	Depth of Key Concepts	3/3
4.1a	Practice opportunities over the course of a lesson and/or unit (including instructional assessments) require students to demonstrate depth of understanding aligned to the TEKS.	**1/1**
4.1b	Questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards.	**2/2**

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

Evidence includes, but is not limited to:

Practice opportunities over the course of a lesson and/or unit (including instructional assessments) require students to demonstrate depth of understanding aligned to the TEKS.

- The material includes practice opportunities throughout the lesson which require students to demonstrate the depth of understanding aligned to the TEKS. For example, the "Assessment Guide" includes the statement, "You will see a statement that connects to prior knowledge and an Essential Question that anticipates new learning." At the end of the lesson, students return to and answer the "Essential Question" to demonstrate their learning. In Module 1, Topic 1, Lesson 1, the essential question states, "You have studied figures that have the same shape or measure. How do you determine whether two figures have the same size and the same shape?" This question connects to prior learning while anticipating new learning as students will answer the question at the end of this lesson to demonstrate their depth of understanding.
- The "End of Topic Assessments" requires students to demonstrate a depth of understanding aligned with the TEKS. For example, questions 3, 4, and 7 from the End of Topic Assessment in Module 1, Topic 1, assess TEKS 8.10C. Question 3 asks students to find the rule that matches the transformation given on the coordinate grid, question 4 asks students to write the algebraic rule to represent the verbal description of the transformation, and question 7 asks students to reflect a given image over the *x*-axis and write the algebraic rule, which requires students to create a new image and write the rule.
- The materials include practice opportunities that require students to demonstrate a depth of understanding aligned with the TEKS. "Talk the Talk," found at the end of each lesson in the student textbook, is an activity that prompts students to use what they have learned in the preceding lesson and connect to the Essential Question from the lesson opener. The Talk the Talk near the end of Module 5, Topic 2, Lesson 2, requires students to create "a Pythagorean Triple that contains each length or lengths" given and then verify that the side lengths form a right triangle. Students must then answer the questions "Are the side lengths of a right triangle always integers? Why or why not?" and "Can any integer be used to create a Pythagorean

triple? Why or why not?" These questions require a deeper understanding of the TEKS addressed in this lesson.

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

- The grade 8 materials contain questions that increase in rigor for students to achieve grade-level proficiency. For example, as students move towards proficiency on TEKS 8.3A, the "Skills Practice" in Module 1, Topic 2, starts with a guided practice where students apply dilations and make connections to proportional relationships with geometric figures that began developing in grade 7. Then, as the practice continues, students are tasked with a more rigorous question to compare and contrast how proportions affect sides and angles differently.
- The "Getting Started" portion of the material includes "Questions to Support Discourse," which progressively increase in rigor and complexity as they guide students through Gathering, Probing, Seeing Structure, or Reflecting and Justifying. After completing additional coursework, more questions are asked to Gather, Probe, and See Structure, and this cycle continues. These "questions are phrased in a way that promotes analysis, develops higher-order thinking skills, and encourages the seeking of mathematical relationships."
- The materials include tasks that progressively increase in rigor and complexity. For example, in Module 5, Topic 2, the lessons progress by first introducing the Pythagorean Theorem through an investigation into the patterns of right triangles. The lessons then ask students to prove the Pythagorean Theorem by drawing right triangles and the squares of the sides. Next, the lesson asks students to determine whether side lengths form a right triangle and find the hypotenuse and side lengths progressing from basic solving to real-world application problems that involve justifying their answers and using higher-level thinking.
- Tasks in materials increase in rigor and complexity as the learning progression evolves from concrete understanding to representation to abstract thinking. Module 5, Topic 4, Lesson 2, Overview, states, "Students use nets for a cylinder and a cone to assemble models and explore the volume of a cone in comparison to the volume of the cylinder." This lesson has students develop a concrete understanding of how the formula for the volume of a cylinder and the volume of a pyramid relates to the volume of a cone. Students use that understanding to represent and think abstractly to write the formula for the volume of a cone. Then, students solve problems given different dimensions of a cone, including the slant height.

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

Evidence includes, but is not limited to:

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

- The materials demonstrate coherence across grade bands through a logically connected scope and sequence. The "Content Organization Document" states, "Connections are shown visually within and between courses in the instructional materials with icons. Topics with the same icon link concepts within and across grades." In grade 6, students work with expressions, one-step equations, and inequalities and move into working with two-step equations and inequalities in grade 7. In grade 8, students model and solve one-variable equations with variables on both sides and continue solving linear equations with variables on both sides and quadratic equations in Algebra I.
- The materials include suggested tools, representations, and scaffolds to build coherence across grade levels. In grade 6, students begin to use algebra tiles in Module 4, Topic 1, Lessons 3 and 4, to model equivalent expressions. In grade 7, students use algebra tiles in Module 3, Topic 2, Lessons 2 and 5, to solve equations and inequalities. In grade 8, students use algebra tiles in Module 4, Topic 1, Lessons 1 and 3, to solve equations with variables on both sides. Students will use this learning to solve linear equations and inequalities in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides in Algebra 1.

- The materials demonstrate coherence across course/grade bands through a logically sequenced scope and sequence. The *Teacher Edition* contains "Module and Topic Overviews" that outline "how activities within lessons build to achieve understanding within topics and how topics build to achieve understanding throughout the course." For example, in Module 1, Topic 2 Overview, the materials provide teachers with an explanation of the "entry point" for the topic, including what students learned in previous grade levels and what they will be learning in the current grade level. The overview then explains why learning the topic is important by explaining what they will do with the topic in future grade levels.

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

- The Content Organization Document shows clear vertical alignment and the relationships both within the grade level and future grade bands of big ideas from grade 6 to Algebra 1. One connected big idea involves equations, expressions, and relationships. In grade 6, Module 4, students work with expressions and one-step equations and inequalities. In grade 7, Module 3, students work with two-step equations and inequalities, and in grade 8, Module 4, students model and solve one-variable equations with variables on both sides. In Algebra I, Module 3, students solve linear equations with variables on both sides using the distributive property when necessary, and in Module 5, students expand to solving quadratic equations.
- Materials demonstrate coherence across modules/topics by explicitly connecting patterns between mathematical concepts. For example, the Module 1 Overview states, "Transforming Geometric Objects engages students in transforming geometric objects using translations, reflections, rotations, and dilations;" and continues with, "Transforming Geometric Objects contains three topics: Rigid Motion Transformations, Similarity, and Line and Angle Relationships. Students use patty paper to investigate transformations of geometric objects. These investigations lead to an understanding of congruence and similarity. Students use the new knowledge to establish facts about triangles and relationships between special angle pairs." Later, the overview states, "This module provides opportunities to build intuition and conceptual understanding of transformations, and the relationships of figures created from transformations. In Module 2, Developing Function Foundations, students will use similar triangles to explain the constant slope in linear equations. They will use translations, dilations, and reflections to transform y = x and describe the resulting graph and equation." In the Module 1 Topic 1 Overview, the materials state, "In Rigid Motion Transformations, students use patty paper and the coordinate plane to investigate congruent figures. Throughout the topic, students are expected to make conjectures, investigate conjectures, and justify true results about transformations;" and "Rigid Motion Transformations sets the stage for similarity. Students will contrast these properties with the properties of dilations in the next topic, revisiting similar terminology and notation. They will use transformations to investigate the angle relationships formed when a transversal cuts parallel lines. Students will use rigid motions to transform lines on the coordinate plane when studying linear relationships in this course and future courses."
- Materials demonstrate coherence across modules/topics by explicitly connecting relationships between mathematical concepts. For example, the Topic and Lesson Overviews

explain how concepts are connected throughout the course and from lesson to lesson. In Module 1, Topic 1, Lesson 1, the essential question states, "You have studied figures that have the same shape or measure. How do you determine whether two figures have the same size and the same shape?" This question demonstrates the connected relationships between mathematical concepts in lessons.

- The materials include visual models to provide concrete models for drawing connections between mathematical concepts. For example, in Module 1, Topic 3 Overview, includes multiple images of the various angle types and relationships, making a clear connection among these often-confused relationships.

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.

- Modules, Topics, and Lessons continue to reinforce and build upon content that is vertically aligned. The Module Overview discuss how the modules connect the content and language learned and then discuss how these skills will be used in future topics within the course or in future courses. For example, in Module 1, students build on their geometric knowledge. Previously, students learned an object's name "is not dependent on orientation or size, setting the foundation for similarity." Students use scale factor, which leads them into dilations. In future courses, students will use "function notation to connect geometric and algebraic transformations. They will use transformations to prove geometric properties formally."
- The Content Organization Document includes evidence of concepts being connected to other content and language learned in previous grade levels. For example, the concepts of Equations, Expressions, and Relationships are connected throughout grades 6 through 8 and Algebra 1. Grade 6, Module 2 focuses on students building an understanding of ratios and rates. In grade 7, Modules 1 and 2 have students build on their understanding of proportional relationships. Then, in grade 8, Module 2, students move to linear relationships, and in Algebra I, Module 2, students move from linear relationships to linear functions. Algebra I, Modules 4 and 5 also have students expand their understanding of non-proportional relationships by investigating exponential and quadratic functions.

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 demonstrate coherence at the lesson level by connecting students' prior knowledge of concepts and procedures to new mathematical knowledge and skills within the Topic Overview. For example, in Module 2, Topic 1 Overview states that within this topic, students' knowledge of proportional relationships "sets the foundation of the algebraic study of functions and transformations by connecting what students learned in Module 1 with equations of a line." The Topic 1 Overview also addresses previous learning from earlier grades and states, "In previous courses, students developed ratio and ratio reasoning. They have

determined characteristics of scenarios, tables, graphs, and equations of proportional relationships."

- The "Getting Started" section of each lesson demonstrates coherence at the lesson level by connecting to students' knowledge of concepts and procedures and their real-world experiences. The materials state, "When working on the Getting Started, use what you know about the world, what you have learned previously, or your intuition. The goal is just to get you thinking and ready for what's to come."
- The grade 8 materials connect repeated procedural processes from previous learning to future knowledge embedded within the Topic Overview. For example, in Module 1, Topic 1, the text describes how to use a "problem-solving model" and selecting a tool that procedurally develops into testing conjectures and justifications that build on the student's current understanding of mathematics discourse.
- Materials demonstrate coherence at the lesson level by connecting students' prior knowledge of concepts and procedures from the current grade level to new mathematical knowledge and skills. The teacher "Facilitation Notes," found in the *Teacher Edition*, for each lesson, contain questions for "seeing structure." These questions guide students to discuss the big ideas of the concepts and verbalize the patterns and relationships between concepts. For Module 1, Topic 2, Lesson 1, Getting Started, the seeing structure questions are "How is this activity different from the rigid motion transformations you completed in the previous topic? What is the scale factor between the first and second logos you sketched? What is the scale factor between the second and first logos you sketched?"

Depth and Coherence of Key Concepts

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

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

Evidence includes, but is not limited to:

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

- The materials provide spaced retrieval opportunities with previously learned skills and concepts across modules/topics. The "Skills Practice" provides a "Spaced Practice" section that includes practice on concepts across modules/topics. For example, in Module 2, Topic 1 Skills Practice, the Spaced Practice section provides practice on TEKS 8.10C, covered in Module 1, and TEKS 8.3C, covered in Module 2.
- Materials provide spaced retrieval opportunities with previously learned skills and concepts across lessons. For example, Module 2 contains two topics related to functions. Throughout the two topics, students move from proportions to linear relationships and then explore linear relationships in detail.
- The materials include lesson routines and concepts embedded in each lesson that require students to use previously learned skills throughout sections such as "Getting Started," "Activities," "Talk the Talk," and "Performance Tasks." For example, in Module 2, Topic 1, Lesson 1, Activity 1.1, students are asked to "write equations, graph proportional relationships, and identify the constant of proportionality in equations and graphs." This activity builds on previously discussed proportional relationships built in grade bands 6 and 7.
- Teacher guidance in the *Course and Implementation Guide* states that "The Prepare section [of each Lesson Assignment] provides spaced retrieval of concepts related to previous learning and fluency skills important for the course." Module 1, Topic 1, Lesson 2, Assignment, Prepare section contains three questions that are related to the concepts in the consecutive lesson, Module 1, Topic 1, Lesson 3.

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

- Materials provide interleaved practice opportunities with previously learned skills and concepts across lessons. The "End of Topic Assessment" assesses multiple SEs taught across multiple

lessons. For example, in Module 3, Topic 1, the End of Topic Assessment expects students to contrast bivariate sets of data, use a trend line to make predictions, construct a scatterplot and describe the association, and write an equation using representations.

- Materials provide interleaved practice opportunities with previously learned skills and concepts across lessons. The Skills Practice section includes practice on interleaved concepts from the lessons within a topic. For example, in Module 5, Topic 4, Section D provides interleaved practice for students to calculate the surface area and volume of curved figures.
- The grade 8 materials spiral topics from module/topic to module/topic. For example, in Module 2 Topic 2, Lesson 4, students learn the slope-intercept form of a line, returning to the same concept to scaffold and review content. In Module 3, Topic 1, Lesson 4, students use the slope-intercept form when the materials introduce comparing slopes and intercepts of data from experiments.
- The "Performance Tasks" include interleaved practice opportunities with previously learned skills and concepts across units. For example, the "Writing and Graphing Equations Performance Task" requires students to decipher between graphing a proportional relationship, interpreting the unit rate as the slope, and representing linear proportional situations with graphs, tables, and equations.

Balance of Conceptual and Procedural Understanding

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

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

Evidence includes, but is not limited to:

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

- The materials contain questions that require students to interpret, analyze, and evaluate models and representations. In Module 1, Topic 2, Lesson 3, "Getting Started," students are asked to analyze figures and describe their attributes. Activity 3.2 asks students to decompose a parallelogram to create a rectangle. It then asks students to conclude that the two shapes have the same area and interpret that the same formula can be used to determine the area of either figure. A given question states, "What does it mean when the sides of a figure are parallel?" In "Talk the Talk," the materials have two triangles on a coordinate grid. The question says not to perform any calculations but to determine which triangle has the greatest area.
- The materials include tasks that require students to interpret, analyze, and evaluate models and representations. For example, Module 1, Topic 2, Lesson 2, Getting Started, allows students to complete a given task. The task involves students drawing a triangle, tearing off the three angles, and analyzing the angles by creating a conjecture about the sum of the angles, and then evaluating their model by comparing their angles and conjecture with other students in class.
- The materials contain questions embedded in tasks that require students to interpret a variety of models and representations for various mathematical situations. For example, in Module 1, Topic 1, Lesson 2, Talk the Talk, the task states that "students summarize their understanding of common factors and common multiples. They rewrite a sum using the distributive property and write general statements about GCFs and LCMs." Individual questions that further support evaluation are "What property does the expression a(b + c) represent?" and "What method did you use to determine all possible values of a?"

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

- The materials include questions that require students to create a variety of models to represent mathematical situations. Module 1, Topic 1, Lesson 1 includes a "Gathering Question," "What is the purpose of the arrows in the example?" and a "Seeing Structure Question," "Draw a diagram to represent this expression."
- The "Skills Practice" includes tasks that require students to create a variety of models to represent mathematical situations. For example, students must represent products of fractions using area models when multiplying fractions and draw models to answer ratio questions when determining equivalent ratios and rates.
- The materials include questions and tasks that require students to create a variety of models and representations for mathematical concepts and situations. For example, in Module 2, Topic 2, students create pictorial models, double number lines, and proportions to solve percent problems. Questions ask students to create models and determine the most efficient models and methods to solve problems.

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

- The *Course and Implementation Guide* states that "Questions are phrased in a way that promotes analysis, develops higher-order thinking skills, and encourages the seeking of mathematical relationships." For example, "Thumbs Up/Thumbs Down" questions "allow students the opportunity to analyze viable methods and problem-solving strategies...to help students think more in-depth about the various strategies and analyze correct responses." This guidance is done by showing students a worked example of a problem and asking them to give a thumbs up or down whether it is solved correctly or incorrectly, which provides an opportunity for students to apply conceptual understanding to new problem situations.
- Questions provide opportunities for students to apply conceptual understanding to new problem situations and contexts. The materials provide open-ended questions with a variety of possible answers and direct students to explore other possible options after they have discovered one answer. In Module 2, Topic 3, Lesson 2, students compare different methods of estimating unit rates and conclude that both methods lead to correct solutions. The *Teacher Edition* directs teachers to ask probing questions such as, "What is another way to express the unit rate? Which size detergent is the better buy? How can you tell? Which form of the unit rate makes more sense when comparing for the better buy? Explain your thinking."
- The materials contain questions for students to apply conceptual understanding to new problem situations and contexts. For example, "Performance Task 3" includes questions such as, "What information is given in this situation?" to "Why is the money for snow boots represented as a negative amount?" to "Do you notice any patterns in what you are doing?" The task concludes with a "Challenge Opportunity" state, "Tell students to suppose that a certain number of people could no longer attend the ski trip. Ask students to determine the

impact of this change on the number of chaperones, hotel rooms, and buses needed, as well as the new cost per student."

- The Skills Practice includes tasks that allow students to apply conceptual understanding to new problem situations and contexts. For example, the Skills Practice, when used with the "Learning Together" lesson, creates "a balance of these two components [which] provides students with the opportunity to develop a deep conceptual understanding through collaboration with their peers while demonstrating their knowledge individually."
- The materials contain tasks for students to apply conceptual understanding to new problem situations and contexts. For example, Performance Task 3 states, "Each winter, the Parent Teacher Association (PTA) at Ethan’s school organizes a ski trip. Students pay an upfront cost, which includes a 2-night stay, transportation, meals, and 6 hours of skiing each day." The task continues with additional information students need to complete the task of writing and solving equations to determine a variety of situations.

Balance of Conceptual and Procedural Understanding

5.2	Development of Fluency	12/12
5.2a	Materials provide tasks that are designed to build student automaticity and fluency necessary to complete grade-level tasks.	**2/2**
5.2b	Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures within the lesson and/or throughout a unit.	**3/3**
5.2c	Materials provide opportunities for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy within the lesson and throughout a unit.	**6/6**
5.2d	Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches.	**1/1**

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

Evidence includes, but is not limited to:

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

- Materials provide tasks that are designed to build student fluency necessary to complete grade-level tasks. The *Course and Implementation Guide* found at the start of the *Teacher Edition* describes the instructional design process used in the materials.\stating, "The instructional development aids students in the effective transition from their intuitive understanding of the world to the abstract language of mathematics. Once students have ample opportunities to build understanding, procedural problems and exercises are presented to increase computational fluency."
- "Skills Practice Overview," in the *Skills Practice Teacher Edition*, states, "Deliberate practice is essential to build fluency in mathematics," and provides reinforcement that intentionally connects concepts and provides review opportunities. This intentional, ongoing practice allows students to go past rote memorization and truly remember new information. The individual practice, provided by "Skills Practice," "is necessary for students to become fluent and build automaticity in a skill." The "Skills Practice" from Module 1, Topic 1, Set IV, which corresponds to Lesson 4, provides an opportunity to practice with reflections of figures on the coordinate plane. Many of the problems are inquiry-based with reasoning-based answers. Skills Practice for this same lesson contains multiple algorithm-based area problems and many application problems, which support fluency and automaticity in students.

- "Prepare," located at the end of every lesson assignment, provides "spaced retrieval of concepts related to previous learning and fluency skills important for the course." For example, Module 1, Topic 1, Lesson 2, is "Introduction to Rigid Motions," which takes students through translations, reflections, and rotations on the plane. Module 1, Topic 1, Lesson 4, Prepare, states to "Redraw each given figure as described" and gives three rotation problems. This spaced retrieval builds student automaticity and fluency.
- The materials include daily exercises that target specific skills or concepts and build automaticity and fluency. Each module and lesson through the Skills Practice provides an example.

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

- Materials provide opportunities for students to practice the application of efficient mathematical procedures within the lesson and/or throughout a module/topic. In the *Course and Implementation Guide* of the *Teacher Edition*, it states, "The instructional approach utilized is based on three key components: Engage (Getting Started), Develop (Activities), and Demonstrate (Talk the Talk). The "Getting Started" for each lesson activates student thinking by tapping into prior knowledge and real-world experiences. For example, Module 1 includes a Getting Started activity that allows students to think back on different skills that they have recently learned.
- Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures within the lesson and/or throughout a module/topic. For example, the Getting Started activity provides an entry point for students to be introduced to the concept of the Pythagorean Theorem. The guided activities in Module 5, Topic 2, Lesson 1 support students in planning and strategy development by scaffolding the practice. The lesson ends with a "Lesson Assignment," which provides students the opportunity to apply their learning to solve problems involving the Pythagorean Theorem.
- "EB Student Tips" provide opportunities to practice the application of flexible mathematical procedures. These EB Student Tips, while called out for emergent bilingual (EB) students, provide flexibility in mathematical procedures for all students. Module 1, Topic 3, Lesson 1, EB Student Tips, allows for flexibility by utilizing a word bank and flash cards. The lesson contains additional EB Student Tips with students standing in different corners and one student outside the classroom. A discussion follows about the location of the students relative to each other.
- "Performance Tasks" provide opportunities to practice the application of accurate mathematical procedures. Performance Task 3 has students write an equation with variables on both sides that represent a real-world scenario. After the students solve each problem, the teacher checks their work against the provided exemplar and rubric for accuracy.
- Materials provide opportunities for students to practice the application of efficient mathematical procedures within the lesson and/or throughout a module/topic. Questions following "Worked Examples, "Thumbs Up/Thumbs Down" boxes, and "Who's Correct" boxes ask students to replicate the efficient solution method presented in the worked example. For example, in Module 2, Topic 2, Lesson 2, Activity 2.2, Question 2 is a Who's Correct question that asks students to examine three tables, each with sample work. Students have to decide

which slope was calculated correctly and explain their reasoning. This question is followed up with a "Worked Example" that shows students how to find the slope using two points and the slope formula. Question 3 asks students to "Repeat the process to calculate the slope using two different values from the table. Show your work." Then Question 4 asks, "How is using the slope formula given a table related to using similar triangles given a graph?"

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

- Materials provide opportunities for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy within the lesson. "Thumbs Up/Thumbs Down" problems "allow students the opportunity to analyze viable methods and problem-solving strategies." The questions are presented to help students "think more in-depth about the various strategies and analyze correct responses." Thumbs-down problems with incorrect answers allow students to explain errors and make corrections. "Who's Correct?" problems are "an advanced form of correct vs. incorrect responses." In these problems, students aren't told who is correct, which requires students to think deeper about what the strategies mean and if the given solutions make sense. Module 2, Topic 1, Lesson 3, includes a Who's Correct? problem where students have to determine if Jaylen's statement about right triangles is correct. Module 2, Topic 2, Lesson 2, contains a Thumbs Up/Down problem asking students to "analyze Kaya's reasoning. Explain why her reasoning is incorrect."
- The "Assessment Reflection" within the *Assessments Teacher Edition* includes opportunities for students to evaluate their procedures, processes, and solutions from their previous "End-of-Topic Assessment." The Assessment Reflection asks questions such as "What went well? What are some behaviors that you or others exhibited during the topic that contributed to those things going well? What did not go as planned? How will you build on the things that went well? What are some things you can do between now and the next assessment to improve things that did not go as planned?"
- The materials provide opportunities for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy within the lesson and throughout the module/topic. For example, in Module 5, Topic 2, Lesson 1, students are provided a problem with the work of two different students. Students analyze the work of the students to determine where the error in algebraic reasoning exists. Students then solve similar real-world problems using the Pythagorean Theorem, which requires them to determine the reasonableness of their answer and adjust solutions to fit the real-world problem. For example, in one problem, the answer states, "The 8-foot rope will work, but the 7-foot rope will be too short. Mason will need another piece of rope to complete the project."

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

- The materials contain embedded supports for teachers to guide students toward increasingly efficient approaches. For example, in Module 5, Topic 2, Lesson 2, the Facilitation Notes

provide teachers with "probing," "gathering," and "seeing structure" questions to support student discourse within each part of the lesson. In Module 1, Topic 3, Lesson 1, a set of "Differentiation Strategies" is provided along with an "Optimizing Learning" margin note that states, "This differentiation strategy builds fluencies with graduated levels of support for practice and performance."

- The "Facilitation Notes" in each lesson provide "appropriate hints, probing questions, feedback, linguistic support, and help to clarify" to guide students to use a particular strategy. For example, the "Differentiation Strategies" for all students guide the students to use a more efficient approach, such as suggesting that students use arrows rather than subscripts when calculating slope from a table.
- Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches. Examples are the embedded character bubbles: Module 1 Topic 2 Lesson 3, Getting Started, stating "Do you think all rectangles are similar to each other? What about squares?"

Balance of Conceptual and Procedural Understanding

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

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

Evidence includes, but is not limited to:

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

- The materials address conceptual and procedural aspects of the TEKS. For example, Module 1 Overview says "Throughout the module, students use transformations to build new knowledge and develop conceptual understanding of geometric concepts. " Throughout Module 1, students use patty paper to investigate rigid motion transformations. They then move into the procedural piece of applying the algebraic representation of the transformation. Module 1, Topic 2 Overview states "The first lesson in the topic builds a conceptual foundation for students. " After students make connections between scale factors and dilations, they "dilate figures on the coordinate plane and generalize the coordinates of images formed from a dilation with a center at the origin."
- The materials describe how conceptual and procedural pieces of the TEKS are addressed. In the "Scope and Sequence" (165-Days), Module 4, Topic 1, Lesson 1, students "use algebra tiles to model and solve equations with variables on both sides of the equal sign before solving equations algebraically."
- The materials state how conceptual and/or procedural emphasis of the TEKS are addressed in Module 2 Overview. In the Module 2 Overview, the materials state "By the conclusion of this module, students will have a strong conceptual understanding of functions, particularly linear functions." The materials also state "Developing Function Foundations provides students with a deep conceptual understanding of functions."
- The materials explicitly state how the procedural emphasis of the TEKS are addressed. The "Balancing Conceptual and Procedural" section of the *Program and Implementation Document Guide* states "This program covers both conceptual deep understanding and procedural fluency to pursue rigorous coverage of the TEKS. Both conceptual understanding

and procedural fluency are necessary for proficiency. To achieve a deep understanding and progression in instruction starts with building understanding with concrete objects or movements, then moves to representing concepts visually, and finally to abstraction by modeling with symbols. Progressions can occur across topics, across lessons, and within lessons. Students have ample opportunities before procedural problems and exercises are presented to increase computational fluency. More information on balancing the conceptual and procedural for each course is in the course-specific Connecting Learning Experiences section of the Course and Implementation Guide."

- The materials explicitly state how the procedural emphasis of the TEKS are addressed. The *Course and Implementation Guide*, "Connecting Learning Experiences" section states "The Instructional development aids students in the effective transition from their intuitive understanding of the world to the abstract language of mathematics. Once students have ample opportunities to build understanding, procedural problems and exercises are presented to increase computational fluency. A thoughtful progression from the use of manipulatives and visual aids to representations and drawings that bridge to more abstract understanding benefits all students."

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

- The materials consistently include questions embedded in each lesson that contain concrete models and manipulatives, pictorial representations, and abstract questions. An example of this is in Module 3, Topic 1, Lesson 1. Activity 1.1, which has guiding questions that help develop pictorial representations, such as "Are there any trial times that are very different from the others? What caused that to happen?" Then within Activity 1.1, guiding questions that help construct diagrams and concrete models using a scatter plot are "How would you describe your scatterplot? The points on the graph do not form a line. What might be a reason for this?" Then the "Talk to Talk" moves into questions that guide students to use scatter plots more abstractly, "Explain positive and negative association by beginning with the phrase, 'As the explanatory variable increases.'"
- The "Skills Practice" includes tasks that include the use of concrete models and manipulatives, pictorial representation, and abstract representations. For example, students use equations and graphs to model problems and situations.
- Questions and tasks include the use of concrete models and manipulatives, pictorial representation, and abstract representations as appropriate for the content and grade level. For example, in Module 4, Topic 2, students begin an investigation of the Pythagorean Theorem using models of right triangles to represent the sum of the squares of the legs and their relationship to the square of the hypotenuse. Students create and use models to answer questions about the Pythagorean Theorem and develop the formula used to find the missing side lengths of a right triangle. Students then use pictures of right triangles and real-world images of right triangles to solve problems using the Pythagorean Theorem formula.
- Materials include tasks that include the use of concrete models as appropriate for the content and grade level in the Assessment Guide. In the "Performance Tasks Overview" of the Assessment Guide, it states "The Performance Tasks are a collection of problem-based tasks

that are aligned with selected TEKS from this course. They provide an additional opportunity for students to demonstrate their ability to make sense of multi-step, real-world problems, communicate their thinking, represent solutions, and justify their reasoning on content aligned with these selected math standards." For example, "Students will demonstrate understanding of the Writing and Graphing Equations Performance Task when they can: • Graph a proportional relationship, interpreting the unit rate as the slope of the line that models the relationship. • Represent linear proportional situations with tables, graphs, and equations in the form of y = kx. • Use similar right triangles to demonstrate that slope, given as the rate comparing the change in y-values to the change in x-values, is the same for any two points on the same line. • Distinguish between proportional and non-proportional situations using tables, graphs, and equations in the form y = kx or y = mx + b, where b not equal to 0."

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

- The materials include supports for students in connecting, creating, defining, and explaining concrete and representational models embedded in the student guidance through the "Problem-Solving Model Graphic Organizer." The graphic organizer supports students when connecting, creating, defining, and explaining concrete and representational models by understanding the problem, devising a plan, carrying out the plan, looking back, and reporting. This organizer is located at the beginning of every *Student Edition*.
- The materials contain a "Math Glossary" that defines the academic term and has a visual or model representation of the term. For example, "Scientific notation is a notation used to express a very large or a very small number as the product of a number greater than or equal to 1 and less than 10 and a power of 10. Example The number 1,345,000,000 is written in scientific notation as 1.345 3 x 10^9."
- The "Probing" questions within the Questions to Support Discourse include support for students in connecting, creating, defining, and explaining concrete and representational models to abstract concepts. For example, in Module 5, Topic 2, Lesson 1, teachers lead students in a series of questions to aid them in modeling the Pythagorean Theorem on triangles.

Balance of Conceptual and Procedural Understanding

5.4	Development of Academic Mathematical Language	14/14
5.4a	Materials provide opportunities for students to develop their academic mathematical language using visuals, manipulatives, and other language development strategies.	**3/3**
5.4b	Materials include embedded guidance for the teacher addressing scaffolding and supporting student development and use of academic mathematical vocabulary in context.	**2/2**
5.4c	Materials include embedded guidance for the teacher to support the application of appropriate mathematical language to include vocabulary, syntax, and discourse to include guidance to support mathematical conversations that provide opportunities for students to hear, refine, and use math language with peers and develop their math language toolkit over time as well as guide teachers to support student responses using exemplar responses to questions and tasks.	**9/9**

The materials provide opportunities for students to develop their academic mathematical language using visuals, manipulatives, and other language development strategies. Materials include embedded guidance for the teacher addressing scaffolding and supporting student development and use of academic mathematical vocabulary in context. Materials include embedded guidance for the teacher to support the application of appropriate mathematical language 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 provide opportunities for students to develop an academic mathematical language using visuals, manipulatives, and other language development strategies. "Talk the Talk," at the end of each lesson, includes activities to promote student discourse. Students work with partners to discuss and answer questions, followed by sharing and summarizing. "Chunking the Activity" guides the teacher to implement Talk the Talk. For example, Module 1, Topic 1, Lesson 5, states, "Read and discuss the directions. Group students to complete the activity. Share and summarize. Have students answer the Essential Question on the lesson opener." The "Lesson Facilitation Notes" include "look fors" such as vocabulary, misconceptions, and "Questions to Support Discourse."
- The "Math Glossary" is a "course-specific math glossary…for students to utilize and reference during their learning. Definitions and examples of key terms are provided in the glossary." This Math Glossary provides opportunities for students to develop an academic mathematical language using visuals and other development strategies such as definitions. For example, scientific notation: "Scientific notation is a notation used to express a very large or a very small

number as the product of a number greater than or equal to 1 and less than 10 and a power of 10. Example The number 1,345,000,000 is written in scientific notation as 1.345 3 x 10^9."

- "EB Student Tips" and "Differentiation Strategies" provide opportunities for students to develop an academic mathematical language using manipulatives and other language development strategies. EB Student Tips offer support, such as reminding students to refer to the "Academic Glossary" and asking themselves questions such as: "How should I organize my thoughts?" or "Did I consider the context of the situation?" EB Student Tips may also help students differentiate between certain terms and share the similarities and differences among these terms. Differentiation Strategies include having students model and demonstrate problems, which act as a manipulative for developing strategies. For example, in Module 5, Topic 4, Lesson 3, Activity 3.1, "Ensure students are familiar with terms such as modeling clay, squish, and mold. Encourage students to share their understanding of the terms, and then share the meaning in the context of the directions. Consider modeling parts of the task for students to help them make sense of the terms and directions."

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

- The materials include embedded guidance for the teacher addressing scaffolding and supporting student development and use of academic mathematical vocabulary in context. For example, the EB Student Tips in Module 5, Topic 2, Lesson 4, suggests, "Use sentence frames such as these to provide relevant practice...." Another EB Student Tip in Module 5, Topic 3, Lesson 2, suggests "Support students in developing language related to financial literacy" and goes on to suggest creating jars as models for different financial paths.
- The materials include embedded guidance for the teacher addressing scaffolding and supporting student development and use of academic mathematical vocabulary in context. For example, Module 1, Topic 2, Lesson 1, describes a *dilation*. The "Worked Example" shows images of a dilation and how the scale factor can be expressed. "Stamp the Learning," in the margin next to the images and description of *dilation*, provides the teacher with guidance to have the students "restate or explain the information in their own words." The cartoon character thought bubble states, "The image of a dilation can also be called a *scale drawing*."
- The "Getting Started Activities Facilitation Notes" guide the development of the content vocabulary embedded within the lesson. In Module 5, Topic 4, Lesson 3, "In this activity, the terms associated with a sphere are introduced. Students list all of the properties of a sphere, given the length of the radius of the sphere."
- Materials include embedded guidance for the teacher addressing scaffolding student development and use of academic mathematical vocabulary in context. The Program and Implementation Guide found in the "Program Level Resources" includes a section called "Leveraging the Math Glossary, Header Scaffolding Up for Students" states, "Consider scaffolding activities that would encourage students to pursue cross-discipline and real-world applications of academic terminology using the Math Glossary. How would this vocabulary integrate in the real-world and in common language? What careers would use this language regularly and why might they use it regularly? By encouraging your students to begin to develop

those real-world connections to the vocabulary, it will help them apply the information they are learning to other disciplines as well."

Materials include embedded guidance for the teacher to support the application of appropriate mathematical language to include vocabulary, syntax, and discourse to include guidance to support mathematical conversations that provide opportunities for students to hear, refine, and use math language with peers and develop their math language toolkit over time as well as guide teachers to support student responses using exemplar responses to questions and tasks.

- The materials provide guidance for teachers to support mathematical language, so students have the opportunity to hear, refine, and use math language. Talk the Talk requires students to work collaboratively to solve a problem. Through discussion, students use mathematical language and refine their own understanding of the language. The Facilitation Notes include questions for the teacher to ask to support the students in their learning. Module 2, Topic 2, Lesson 3 includes the "Probing Question," "Can you calculate the cost using one point only? Why or why not?" The Lesson Facilitation Notes include "look fors" such as vocabulary, misconceptions, and "Questions to Support Discourse."
- Stamp the Learning includes embedded guidance for the teacher to support the application of appropriate mathematical language. For example, Module 5, Topic 3, Lesson 1 states, "The paragraph provides an opportunity for explicit instruction. Interact with this information as a class and encourage students to restate or explain the information in their own words."
- Differentiation Strategies include embedded guidance for the teacher addressing scaffolding, supporting student development, and using academic mathematical vocabulary in context. For example, one differentiation strategy suggests that students create a Venn diagram to display relationships among all the terms introduced throughout a certain topic.
- The material includes teacher support for discussing and assessing the application of appropriate vocabulary, syntax, and discourse in the "Performance Tasks." For example, in Performance Task 3, students look for "The use of the Problem-Solving Model Graphic Organizer to organize their thinking. Multiple solution strategies. Work that includes all components required by the rubric. Collaboration and communication with peers. Algebraic expressions representing how to calculate the cost of a party at each venue."
- The Performance Tasks also guide teachers to support the application of appropriate mathematical language, including vocabulary, syntax, and discourse. If Performance Tasks are completed in collaborative groups, two days are suggested for completion: "On the first day, groups will complete the task. On the second day, groups will present the strategies they used to complete the task, and you will facilitate a collaborative discussion." The Performance Tasks also guide teachers to support student responses using exemplar responses to questions and tasks. Each task includes Facilitation Notes that contain student look fors, Questions to Support Discourse, Differentiation Strategies, "Challenge Opportunities," and "Common Misconceptions." The task also includes a rubric for consistent scoring and an exemplar answer.

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 Texas Essential Knowledge and Skills (TEKS) Mathematical Process Standards (MPS) addressed for every topic are listed at the beginning of the topic in the "Scope and Sequence."
- The process standards are integrated into the materials. The "Topic Overview," which includes a "Topic Pacing Guide," an embedded "Scope and Sequence" into the *Teacher Edition*, includes the list of all process standards addressed for that topic, identical to the separate Scope and Sequence document. Each Topic Overview also includes a section titled "How do the activities in [topic name] promote student expertise in the TEKS mathematical process standards?" which highlights how the process standards are integrated into that topic.
- TEKS MPS are integrated appropriately into the materials. For example, the "Lesson Overview" lists the TEKS MPS addressed in the lesson.

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

- "Performance Tasks" include a description of how TEKS MPS are incorporated and connected. The "Performance Task Overview" asks the question, "How do the Performance Tasks promote student expertise in the TEKS Mathematical Process Standards?" It is answered by stating, "The Performance Tasks focus on students demonstrating proficiency in the TEKS MPS and selected TEKS-aligned content from this course. Each performance task begins with a real-world situation (TEKS 8.1A). Students can use the problem-solving model as they work through each task (TEKS 8.1B). They will choose from the appropriate tools and strategies learned from

this course to answer questions (TEKS 8.1C). Determining solutions requires students to use multiple representations to organize and communicate their ideas (TEKS 8.1D, 8.1E). As students analyze the mathematical relationships in the task, they justify their reasoning using precise mathematical language (TEKS 8.1F, 8.1G)."

- The materials show where each process standard is addressed in the course. For example, at the beginning of Module 4, Topic 2, Lesson 3, the TEKS MPS are verbatim from the TEKS 8.1C and 8.1F. The process standards are also listed within the Scope and Sequence and Topic Overviews.
- The embedded margin notes for teachers provide descriptions within the "TEKS Mathematical Process Standards Notes." For example, "Each note references a particular TEKS mathematical process standard. The first instance of a TEKS mathematical process standard is highlighted in a lesson and encourages you to introduce the standard to your students. After the first time a process standard is highlighted, additional notes help you assess whether students are demonstrating proficiency with the process standards."
- Materials include a description of how process standards are incorporated throughout the course. The "Problem-Solving Model" utilized throughout the course is outlined in the *Course and Implementation Guide* under the subheading "Facilitating Student Learning." The Problem-Solving Model is incorporated throughout the course, and the description of this model states, "Productive mathematical thinkers are problem solvers. These instructional materials include a problem-solving model to help students develop proficiency with the TEKS mathematical process standards and to make sense of the problems they must solve. As students engage with the problem-solving model, have them use the provided questions to guide their thinking. As students collaborate, suggest they use the provided questions to spark discussion. When appropriate, provide students with the Problem-Solving Model Graphic Organizer to complete as they solve problems."

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

- The materials include margin notes with descriptions for each module of how TEKS MPS are incorporated and connected throughout the module/topic. For example, in Module 1, Topic 1, Lesson 1, the margin note states, "This is the first lesson where TEKS 8.1G is highlighted." The note goes on to explain how teachers can incorporate the process standard in the activity. The *Course and Implementation Guide* states "After the first time a process standard is highlighted, additional notes help you assess whether students are demonstrating proficiency with the process standards."
- The materials discuss how each of the TEKS MPS are used within the lesson. For example, Module 3, Topic 1 Overview states, "The activities in this topic require students to reason about and describe the patterns of association on scatterplots of bivariate data. They are provided opportunities to develop fluency with key vocabulary to accurately describe scatterplots (TEKS 8.1G). Modeling with mathematics is prevalent throughout the topic. Problems are provided in context (TEKS 8.1A), and students develop mathematical models (TEKS 8.1C), interpret the models (TEKS 8.1F), and use the models to make predictions (TEKS 8.1E)."

- In the Topics, the implemented TEKS MPS are discussed at the beginning of the topic. For example, Module 3, Topic 1 Overview states, "How do the activities in Patterns in Bivariate Data promote student expertise in the TEKS mathematical process standards? Each topic is written to create mathematical thinkers who are active participants in class discourse, so elements of the TEKS mathematical process standards should be evident in all lessons." This question is followed by a detailed description of how the process standards highlighted in that specific topic are addressed within the lessons.

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

- The materials include a list of the TEKS MPS incorporated into each lesson in the Lesson Overview. The list includes the full "Knowledge and Skill Statement" for each process standard listed.
- The Lesson Overview of each lesson contains a section for the TEKS MPS written out fully. For example, Module 1, Topic 1, Lesson 3 covers TEKS 8.1C - select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems, TEKS 8.1D - communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate, and TEKS 8.1F - analyze mathematical relationships to connect and communicate mathematical ideas.
- The materials have a list of the TEKS MPS at the beginning of each lesson. For example, Module 3, Topic 1, Lesson 4, TEKS 8.1B is listed. Then, it further describes: "The student applies mathematical process standards to use proportional and non-proportional relationships to develop foundational concepts of functions."
- Lessons also contain TEKS MPS margin notes for teachers. The *Course and Implementation Guide* states, "Each note references a particular TEKS mathematical process standard. The first instance of a TEKS mathematical process standard is highlighted in a lesson and encourages you to introduce the standard to your students. After the first time a process standard is highlighted, additional notes help you assess whether students are demonstrating proficiency with the process standards." One example of these margin notes is in Module 3, Topic 1, Lesson 2, which states, "Student Look-Fors[:] Whether students are demonstrating proficiencies related to TEKS 8.1C: Are students considering which strategies or tools to use?"

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 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 "Performance Tasks" provide opportunities for students to think mathematically, persevere through solving problems, and make sense of mathematics. The "Performance Task Overview" states that these tasks are "an additional opportunity for students to demonstrate their ability to make sense of multi-step, real-world problems, communicate their thinking, represent solutions, and justify their reasoning on content aligned with these selected math standards."
- Materials provide opportunities for students to think mathematically by identifying spots clearly in the modeling moments with the "Problem-Solving Model Graphic Organizers." For example, in Module 3, Topic 2, Lesson 2, there is a Problem-Solving graphic that is an indicator for students to use the Problem-Solving Model Graphic Organizer. The Problem-Solving Model provides opportunities for students to think mathematically, persevere through solving problems, and make sense of mathematics. The materials state that the Problem-Solving Model helps students "make sense of the problems they must solve." The model also includes "provided questions to guide their thinking." The model guides the students with questions like, "What do I notice?", "What plan or strategy can I use to solve this problem?", "Did I justify my mathematical argument clearly using precise mathematical language?", Does my solution make sense in terms of the problem situation?", and "Can others understand my process and solution?"
- The materials provide opportunities for students to persevere through solving problems. There is a focus on problem-solving since the text believes that "solving problems is an essential life skill that students need to develop. The Problem-Solving Model provides a structure to support students as they analyze and solve problems." For example, the "Modeling Moment"

in Module 1, Topic 1, Lesson 4 states "provides instructional guidance surrounding when and how to utilize the Problem-Solving Model Graphic Organizer."
- The materials provide opportunities for students to think mathematically and make sense of mathematics in the "Ask Yourself" questions found in lessons in the Student Edition. For example, in Module 2, Topic 2, Lesson 2, Activity 2.1, the Ask Yourself box states "What precise mathematical language do you need to communicate your mathematical reasoning?"

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

- Materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks. In the *Course and Implementation Guide*, there is guidance to discuss problem-solving with students, "It's not just about answer-getting. The process is important. Making mistakes is a critical part of learning, so take risks. There is often more than one way to solve a problem. Activities may include real-world problems, sorting activities, Worked Examples, or analyzing sample student work. Be prepared to share your solutions and methods with your classmates."
- The materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks. For example, in Module 1, Topic 2, Lesson 3, the materials provide students with examples of two different methods of setting up a proportion to determine a missing side length of similar figures. The students determine that both methods of setting up a proportion can be used.
- "Talk the Talk," at the end of each lesson, supports students in understanding, explaining, and justifying that there can be multiple ways to solve problems. Module 2, Topic 1, Lesson 2 asks students to complete a graphic organizer to "describe how steepness is related to slope, rate of change, unit rate, and the constant of proportionality. Include definitions, graphs, and equations." The "Chunking the Activity" teacher guidance note, in the margin, says to read and discuss the directions, group students for the activity, have the students share and summarize, and then answer the "Essential Question."
- Module 1, Topic 1, Lesson 6, includes a task over "Using Rigid Motions to Verify Congruence." Students can answer a series of questions that the teacher facilitates which ends in a "Who's Correct?" type question. These questions and tasks, along with the "Facilitation Notes," 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.

- The materials provide students with an opportunity to make sense of mathematics through doing, writing about, and discussing math with peers and teachers. In each "Lesson Assignment," the materials provide students with a "Write" feature. For example, in Module 3, Topic 1, Lesson 3, Assignment, Write states, "Explain the difference between interpolating and extrapolating when making predictions from a trend line." The materials also provide students

with writing opportunities in the "Topic Self-Reflection." For example, in Module 3, Topic 1, Self-Reflection, the materials provide students with questions such as "What mathematical understandings from the topic do you feel you are making the most progress with?"

- The materials provide students the opportunity to make sense of mathematics through writing about math with peers and teachers. Module 1, Topic 2, Lesson 3, Talk the Talk, includes the directions to "Determine if each statement is always, sometimes, or never true. Provide a justification for each answer." The Chunking the Activity for Talk the Talk states to group the students and have them share and summarize their answers.
- Materials are designed to require students to make sense of mathematics by doing math with peers and teachers. An example of this is the Who's Correct problem in Module 4, Topic 1, Lesson 1, "Similar to Sofia and Chloe, Minh and Daniel want to multiply both sides of the equation $2.5x + 1.4 = 0.5x + 2$ by 10 before solving the equation because they think it will be simpler for them to solve. The first step of each strategy is shown. Who’s correct? What is the error in the other strategy?"
- Materials are designed to require students to make sense of mathematics through discussions with peers and teachers. For example, in Module 4, Topic 1, Lesson 2, Talk the Talk states "In this activity, students describe how they know when equations have no solution, one solution, or infinitely many solutions. Have students work with a partner or in a group to complete Question 1. Share responses as a class."

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 "Talk the Talk" tasks, along with the "Chunking the Activity" and "Facilitation Notes," support teachers in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, and justifications. Students complete a series of questions where they are doing the math their way, writing about it, and then discussing it with their peers. These discussions have students explain their process and justify why they did so. For example, Module 1, Topic 1, Lesson 1 requires students to determine the corresponding sides and angles of two triangles. Then, students describe how they can slide, flip, or spin the figure to obtain the other figure. Lastly, students discuss their process and findings with the class as directed in the Chunking the Activity and Facilitation Notes.
- Materials support teachers in guiding students to share and reflect on their problem-solving approaches. For example, in Talk the Talk in Module 4, Topic 1, Lesson 2, students are encouraged to use the "Problem-Solving Model" to solve problems. The materials provide teacher guidance in the margins to support students, such as the "Student Look-Fors," which provides questions to consider, such as "Do students evaluate the reasonableness of their solution?" and "Do students adapt their plan as needed?"
- The materials include teacher support for students to share and reflect on their justifications for the "Performance Tasks." In Performance Task 2, the materials include questions and statements for teachers to ask embedded in the "Supporting Productive Struggle, Reflecting, and Justifying" section. For example, the materials state, "Explain your strategy." "What is another way to solve this problem?" "Does your answer make sense?" and "How do you know?"
- The "Assessment Reflection" within the *Assessments Teacher Edition* includes opportunities for students to reflect on their problem-solving approaches, processes, and solutions from their previous "End-of-Topic Assessment." The Assessment Reflection asks questions such as "What went well? What are some behaviors that you or others exhibited during the topic that

contributed to those things going well? What did not go as planned? How will you build on the things that went well? What are some things you can do between now and the next assessment to improve things that did not go as planned?" As students answer these questions, they are to explain, argue, and justify their processes and ideas.

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

- The "Response to Student Performance," located in the *Assessments Teacher Edition* after each End of Topic Assessment, offers prompts and guidance to assist teachers in providing explanatory feedback based on student responses and anticipated misconceptions. For example, if students missed questions over TEKS 8.10A, teachers are guided to "review Congruence in Motion, use Skills Practice Sets I.A, III.A, IV.A, and V.A for additional practice, and review Lesson 2 Assignment Practice Question 2."
- Within the lessons are guidance pieces called "Common Misconceptions," along with margin notes that offer prompts and guidance to assist teachers in providing explanatory feedback based on student responses and anticipated misconceptions. For example, Module 1, Topic 1, Lesson 3 includes a Common Misconception that explains that "Students may believe that the x- and y-values are always positive in the point (x, y) and, therefore, the coordinate pair always lies in Quadrant I. If that is the case, complete a second question as practice, placing (x, y) in a different quadrant and answering Question 2 again."
- The Performance Tasks offer prompts and guidance for teachers to provide feedback. For example, the Performance Task Facilitation Notes provide teachers with Common Misconceptions. Performance Task 2 states, "Students might think that the cost of a birthday party begins when there is 1 guest attending, and not 0..."