Savvas Learning Company LLC

English Mathematics, Geometry

ENVISION+ TEXAS AGA 2027 (PRINT AND DIGITAL), GEOMETRY

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Full-Subject, Tier-1	**9798213463453**	**Both Print and Digital**	**Static**

Rating Overview

TEKS SCORE	ELPS SCORE	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	100%	2	Flags Not in Report	Flags in Report	0

Quality Rubric Section

RUBRIC SECTION	RAW SCORE	PERCENTAGE
1. Intentional Instructional Design	28 out of 28	100%
2. Progress Monitoring	26 out of 26	100%
3. Supports for All Learners	27 out of 27	100%
4. Depth and Coherence of Key Concepts	19 out of 19	100%
5. Balance of Conceptual and Procedural Understanding	41 out of 41	100%
6. Productive Struggle	22 out of 22	100%

Breakdown by Suitability Noncompliance and Excellence Categories

SUITABILITY NONCOMPLIANCE FLAGS BY CATEGORY	IMRA REVIEWERS	PUBLIC	Flags NOT Addressed by November Vote
1. Prohibition on Common Core	0	0	0
2. Alignment with Public Education's Constitutional Goal	0	0	0
3. Parental Rights and Responsibilities	0	0	0
4. Prohibition on Forced Political Activity	0	0	0
5. Protecting Children's Innocence	0	0	0
6. Promoting Sexual Risk Avoidance	0	0	0
7. Compliance with the Children's Internet Protection Act (CIPA)	0	0	0

SUITABILITY EXCELLENCE FLAGS BY CATEGORY	IMRA REVIEWERS
Category 2: Alignment with Public Education's Constitutional Goal	23
Category 6: Promoting Sexual Risk Avoidance	0

IMRA Quality Report

1. Intentional Instructional Design

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

1.1 Course-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.1a	All criteria for guidance met.	4/4
1.1b	All criteria for guidance met.	2/2
1.1c	All criteria for guidance met.	2/2
1.1d	All criteria for guidance met.	2/2
1.1e	All criteria for guidance met.	2/2
—	**TOTAL**	12/12

1.1a – Materials include a scope and sequence outlining the TEKS, ELPS, and concepts taught in the course.

The materials include a section titled "Scope and Sequence Documents," which gives four options for scope and sequences, each including the Texas Essential Knowledge and Skills (TEKS), English Language Proficiency Standards (ELPS), and concepts taught in the course, broken down by units, lessons, and calendar days. The table of contents at the beginning of the *Saavas Flipbook* also includes a scope and sequence and grade-aligned TEKS and Topics.

The Topic Planner breaks down lessons and correlates the TEKS, ELPS, and other key features, such as objectives and language objectives.

The ELPS are at the beginning of each Topic. For example, in Topic 1: Foundations of Geometry, the ELPS for 1-1 is Writing 4F.

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).

The materials include pacing guides for each lesson and unit within the "Scope and Sequence Documents" for three calendar lengths (165, 180, and 210 days). Topic and lesson planning guides are available in *A Program Paced for Success*. Each guide outlines the number of instructional days needed for effective implementation in traditional 45–60-minute and 90-minute block schedules. For Topic 3: Transformations, the table suggests 14 instructional days for 45–60-minute class periods and seven instructional days for 90-minute class periods. The materials provide teachers with opportunities to plan each topic. They include a Topic Planner at the beginning of each topic. For example, in Topic 2: "Parallel

and Perpendicular Lines," Lesson 2-2, the page suggests that teachers plan for two days of instruction, and in Topic 1, Lesson 1, it suggests one day for pacing.

1.1c – Materials include an explanation for the rationale of unit order as well as how concepts to be learned connect throughout the course.

The AGA program overview provides several tools for educators to see the protocols for organizing the materials within the product. Within the "AGA Program Overview," there is an explanation for the order of the topics in the Geometry course. The "From the Authors: Content Organization" section in the overview provides the rationale for topic order and also includes groupings of the topics with connections that should be made between topics throughout the course. The page states, "Topics are sequenced to support mathematics progressions that connect new content knowledge to prior knowledge."

Each lesson plan correlates to past and future concepts, and the program overview also shows connections between units and overarching key concepts for each grouping.

1.1d – Materials include protocols with corresponding guidance for unit and lesson internalization.

Materials include "Internalization Protocols and Observation Tools" with guidance for both "Teacher's Topic Internalization Protocol" and "Teacher's Lesson Internalization Protocol." For example, the "Teacher's Topic Internalization Protocol" encourages teachers to identify how the topic builds student learning through the concrete-representational-abstract model, identify prerequisite skills, identify concepts and skills students need to demonstrate, and gather materials. The "Teacher's Topic Internalization Protocol" also helps teachers plan for seamless progression between lesson parts; however, it does not have appropriate embedded supports for differentiation.

The lessons provide key background information, coherence, lesson objectives, and balance sections to assist teachers in internalizing concepts. Lesson 3-1 includes lesson objectives such as, "Find a reflected image and write a rule for a reflection."

Materials include topic vocabulary support for unit internalization. For example, in Topic 12: "Linguistic Accommodations," topic vocabulary is given for the current topic, prior terms, and vocabulary in context. It also encourages parents to review key vocabulary in their students' glossary; for example, terms like *rigid motion*.

1.1e – Materials include resources and guidance for instructional leaders to support teachers with implementing the materials as designed.

The materials provide resources for instructional leaders to internalize topics and lessons, observe classroom instruction, and analyze student work. Internalization protocols offer instructional leaders

tools and strategies to ensure teachers' and students' internalization of content. For example, in "Internalization Protocols and Observation Tools," an "Observation Tool for Instruction Leaders" is provided to allow coaches and administrators to support teachers' use of the materials to increase student learning. The "Instructional Leaders' Lesson Internalization Protocol" offers guidance in each section, with rationale, implementations, and extensions supporting teachers' lesson internalization and a structured approach.

The "Internalization Protocols and Observation Tools" page also provides instructional leaders with a classroom observation and analysis tool. The evaluation material includes pre-visit preparation, while observing instruction, and a post-visit action plan (if any) with scoring of yes, partially, and no options.

1.2 Unit-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.2a	All criteria for guidance met.	2/2
1.2b	All criteria for guidance met.	2/2
—	**TOTAL**	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.

Each topic includes a comprehensive overview with background content, knowledge, and key vocabulary. The "Topic Vocabulary Support" section provides topic vocabulary, prior terms, upcoming terms, and vocabulary in context. For example, Unit 3: Transformations provides a section of the topic overview titled, "Math Background Coherence," which outlines how the teacher can connect the topic to previous instruction on properties of parallel lines and finding angle measures. The "Background Knowledge" for Topic 4: "Triangle Congruence," details how teachers can connect this topic to students' prior learning of rigid motions and symmetry, while the "Topic Vocabulary" provides a short list of congruence and transformations.

The *Teacher's Edition* provides a unit overview at the beginning of each unit. For example, in Topic 4: "Triangle Congruence," materials include a comprehensive unit overview of key concepts such as congruence, right triangles, and overlapping triangles.

The materials direct teachers and educators to review, discuss, and preview vocabulary related to the Topic. For example, in Topic 4: "Triangle Congruence," topic vocabulary support includes prior terms such as *point symmetry*. Upcoming terms include *equidistant, altitude, and median.*

1.2b – Materials contain supports for families in both Spanish and English for each unit with suggestions on supporting the progress of their student.

The materials provide online support for families in English and Spanish for each topic and lesson, with a brief overview and instructions on how families can connect math to their world. For example, Topic 2, Lesson 2-1: "Parallel Lines," states that families can help support student learning by watching the video tutorial, "What is the Corresponding Angle Postulate" with the student and provides search phrases such as "identify angle pairs for parallel lines cut by a transversal" and "same-side interior angles postulate" for finding more supports online. The Topic 6 Family Engagement informs families that they will likely find quadrilaterals in "walls, windows, computer monitors, and doors."

The materials include a *Teacher's Edition* that provides a unit overview at the beginning of each unit with support for English language learners (ELL) students, and the family engagement link provides access to

the overview of resources and the TEKS available in English and Spanish. The material offers a multilingual glossary, available for download, with visuals for each vocabulary term.

Families have opportunities to assist their students' progress with lesson content, such as watching and sharing suggested tutorial videos with their students. For example, in Lesson 5-1, the video, "How Do You Construct a Perpendicular Bisector?" gives parents opportunities to help their students with homework from the lesson. In Lesson 5-2, the video, *"¿Qué es el circuncentro de un triángulo?"* gives parents opportunities to help their students with homework from the lesson.

1.3 Lesson-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.3a	All criteria for guidance met.	8/8
1.3b	All criteria for guidance met.	3/3
1.3c	All criteria for guidance met.	1/1
—	**TOTAL**	12/12

1.3a – Materials include comprehensive, structured, detailed lesson plans that include daily objectives, questions, tasks, materials, and instructional assessments required to meet the content and language standards of the lesson (aligned with the TEKS and the ELPS).

The materials provide a structured lesson plan for each lesson, with mathematics objectives aligned to the lesson, a list of the TEKS and ELPS aligned to the lesson, a list of materials required, and a reference to quick checks and other assessments for checking mastery of the lesson (e.g., see Unit 3, Lesson 3.1). The materials include assessments, and resources are provided for practice and reteaching if needed.

The *Teacher's Edition* for Lessons 1–3 provides embedded lesson plans for each lesson, including questions to support student understanding, such as, "How does your count compare to your estimate?" Questions to meet language objectives include, "What does it mean to partition a segment?" Tasks to promote reasoning and problem solving include, for example, "How do you find a point exactly between two points?"

Learning objectives align with the TEKS and ELPS. For example, in Lesson 11-4, G.11C TEKS is visible with the objective stating that students use surface area formulas to solve real-world problems. Reading 3G ELPS is visible with the language objective states for students to describe, explain, and justify. An essential question example includes, "How can you determine the height of the cylinder if you know the total surface area and the radius?" The question correlates to the TEKS since the question discusses key components for surface area. The "Language Routine" of critique, correct, and clarify aligns with ELPS since it involves student pairs practicing, retelling, and responding to questions about how to solve for the height of a cylinder.

The materials include tasks to encourage mastery of lesson objectives. For example, in Lesson 11-6: "Pyramids and Cones," students are given tasks such as discussing real-world scenarios with their peers. Teachers can facilitate meaningful mathematical discourse by asking questions such as, "Does it make sense to model the glasses of smoothies as cones?" The "Quick Check" allows students to demonstrate mastery online or on paper with five relevant questions, including multiple-choice and numerical responses.

1.3b – Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson, and the suggested timing for each lesson component.

The materials include a *Teacher's Edition* with a topic planner and a topic resources guide at the beginning of each lesson to provide pacing and objectives for each lesson (see Unit 6: Topic Planner). The materials also include a "Geometry Lesson Plans" resource in the "Texas Reviewer Materials" with student materials lists and suggested minutes for each lesson component. The "AGA Program Overview" lists teacher materials needed for each Topic. For example, Topic 1 requires graph paper, a protractor, a compass, a straightedge, a ruler, scissors, a hands-on game board, and teacher resource originals.

The materials also include student access to multiple resources within the Lesson for practice, reteaching, and application.

The materials show a list of topic resources at the beginning of each topic. For example, in Topic 11, the "Topic Opener," "Math Walk," and "Pick a Project" contain a list of topic resources, including "Pick a Project," "Enrichment," "Quick Check," and "Digital Math Games." The "Pick a Project" page includes more detailed materials for each project that students can choose from.

The "Texas Geometry Lesson Plans" page provides suggested timing for each lesson component. For example, lesson 1-1 is divided into five sections: Explore & Share, 5–10 minutes; Understand & Apply, 15–35 minutes; Practice & Problem Solving, 10–15 minutes; Assess & Differentiate, 10–20 minutes; and Additional Resources, 5–10 minutes.

1.3c – Materials include guidance on the effective use of lesson materials for extended practice (e.g., homework, extension, enrichment).

The *Teacher's Edition* provides guidance based on scored points for assigning reteach, additional practice, and enrichment.

"Texas Reviewer Materials" contains "Texas Geometry Lesson Plans" for each lesson, which include Step 4: "Assess and Differentiate," with guidance on assigning reteach, tutorials, additional practice, and enrichment.

The materials provide quick checks, which are ways to give feedback on mastery of the TEKS and objectives.

Teachers are encouraged to "Engage Through Student Choice" with online practice that groups the items into categories such as On-Level, Advanced, and by Example number. For example, in Lesson 2-1, Step 3: "Practice & Problem Solving," the assignment guide lists different problem numbers for On-Level and Advanced. Yet, some questions overlap, such as "Communicate Math Ideas" and "Error Analysis."

Students are given opportunities to extend their understanding after the lesson, which adapts to their current proficiency. For example, in Lesson 2.4, Step 4, students take a quick check and are given differentiated resources based on their point total. Points 0–3 guide students' to videos, reteach, and vocabulary. Points 4–5 guide students to additional practice and enrichment.

2. Progress Monitoring

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

2.1 Instructional Assessments

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.1a	All criteria for guidance met.	9/9
2.1b	All criteria for guidance met.	2/2
2.1c	All criteria for guidance met.	2/2
2.1d	All criteria for guidance met.	6/6
2.1e	All criteria for guidance met.	2/2
—	**TOTAL**	21/21

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.

The materials include a diagnostic assessment, as well as several progress monitoring, formative, and summative assessments featuring a variety of questions and tasks found in the assessment sourcebook. Each Topic in the course has a "Readiness Assessment" with a variety of tasks and questions, as seen in the Topic 1 Readiness Assessment, where students are asked to measure angles, find the distance between two points, and identify parallel lines. Each topic also has two "Topic Assessments" and two "Topic Performance Tasks" with a variety of tasks and questions. For example, in Topic 1, where students are asked to explain the process of constructing angles with a compass and ruler, identify the measurements of angles and segments using algebra, complete a proof, and perform tasks involved in creating a miniature replica of a museum.

Each lesson in the materials begins with an "Explore & Share" section, which includes questions and tasks designed to assess student understanding and identify potential misconceptions before the lesson. It concludes with a "Quick Check" section, which provides summative tasks and questions. For example, Lesson 2-1: Parallel Lines, "Explore & Share" prompts students to analyze "relationships among the measures of the angles" in a diagram and then explain why they would or would not expect to see the same relationship among angles if they were to draw a different set of parallel lines cut by a transversal. The "Quick Check" then asks students to select statements that are true about a figure, find measures of angles in figures, and identify congruent angles.

The materials include an assessment sourcebook that provides guidance on the type of assessments to use and when and how they should be used. There is a diagnostic assessment for use at the beginning of the year, titled "Geometry Readiness Assessment," and another to be given before the start of a new topic called "Topic Readiness Assessment." There are also a variety of formative assessments that can be

given during (i.e., "Try It!," "Exit Ticket," and "Do You Understand?" or "Do You KNOW HOW?") or at the end of a lesson ("Quick Check"); also included are the Summative assessments that can be given at the end of a topic ("Topic Assessments," or "Topic Performance Tasks"), or after a group of topics and at the end of the year ("Benchmark Assessments").

The materials include diagnostic, formative, and summative assessments to test students' understanding. For example, in the *Teacher's Edition Assessment Sourcebook*, a diagnostic is presented as a "Readiness Assessment" in Unit 2. The tasks vary, with multiple-choice options for items 1, 4, 5, 8, 9, 10, 11, 12, and 14; a multi-select option for item 13; and numerical input for items 2, 3, 6, and 7.

The materials include formative assessments to help monitor progress. For example, in the *Teacher's Edition Assessment Sourcebook*, Exit Ticket 2-1 assesses students with multiple-choice questions. It provides a self-assessment for students to report their understanding and connections to the topic.

2.1b – Materials include the definition and intended purpose for the types of instructional assessments included.

The materials contain an "Assessment Guide," located at the beginning of the *Assessment Sourcebook*, which identifies each type of assessment by name, defines it, and categorizes it as either diagnostic, formative, or summative. For example, Exit Ticket is found in the table under "formative assessment" that takes place "during a lesson" and is defined to "assess students' understanding of critical concepts and skills; results can be used to modify instruction as needed".

The materials include an "Assessment Guide" at the beginning of the *Assessment Sourcebook,* which states the intended purpose for diagnostic, progress monitoring, and formative and summative assessments. For example, the "Assessment Guide" states that the summative assessment should be used to measure students' learning of the content.

The *Assessment Sourcebook*, available under course assessments, lists all types of assessments and their usage guidelines.

The materials include definitions and intended purposes for a variety of instructional materials. For example, in the "AGA Program Overview," the Assessment Resources table provides teachers with the definition of each type of assessment, its purpose, and when to administer each assessment.

The materials include the intended purpose of instructional materials. For example, in the "AGA Program Overview," the purpose of Exit Tickets is to assess lesson content and provide a student self-assessment.

2.1c – Materials include teacher guidance to ensure consistent and accurate administration of instructional assessments.

The materials include an "Assessment Guide" at the beginning of the *Assessment Sourcebook*, which provides instructions on administering each type of assessment throughout the course. The guide also provides instructions on using the data gathered from the assessment.

The materials do provide instructions on the consistent administration of testing. There are various types of assessments. For example, the assessment sourcebook, available under course assessments, lists all types of assessments and their usage guidelines.

In the T*eacher's Edition,* Lesson 1-1, "Quick Check" aligns with the intended purpose of the assessment, which is to assess students' understanding and prescribe differentiated instruction.

2.1d – Diagnostic, formative, and summative assessments are aligned to the TEKS and objectives of the course, unit, or lesson.

The materials contain diagnostic assessments aligned to the TEKS and lesson objectives. A table with a depth of knowledge (DOK), skills, and the TEKS is provided for each assessment in the "Scoring Guide" of the *Assessment Sourcebook*. For example, item 3 on the "Geometry Readiness Assessment" is shown to be at a DOK2, aligned to skill G49, and aligned to TEKS 8.7D.

Formative assessments are aligned with the TEKS and lesson objectives. A table with a DOK, skills, and the TEKS is provided for each assessment in the "Scoring Guide" of the *Assessment Sourcebook.* For example, item 1 on the "Progress Monitoring Assessment" is shown to be at a DOK2, aligned to skill G61, and aligned to the TEKS G.11D. Summative assessments are aligned to the TEKS and lesson objectives. A table with DOK, skills, and the TEKS is provided for each assessment in the "Scoring Guide" of the *Assessment Sourcebook*. For example, item 2 on the Topic 1 Assessment is shown to be at a DOK2, aligned to skill G04, and aligned to the TEKS G.4A.

The materials include scoring guides for each type of assessment that identify the TEKS associated with each item, as well as the DOK and practice problems associated with the item on the assessment.

Assessments are aligned with the (TEKS) and objectives. For example, the Unit 5 diagnostic assessment in the *Teacher's Edition*, *Assessment Sourcebook*, Number 7, aligns with the objective in Lesson 5-3 to "identify special segments in triangles and understand theorems about them." For example, the "Quick Check" formative assessment in Lesson 11-5 aligns with the TEKS G.11C and lesson objective: "Understand how the volume formulas for prisms and cylinders apply to oblique prisms and cylinders."

2.1e – Instructional assessments include TEKS-aligned items at varying levels of complexity.

The materials contain Assessments throughout the course that provide TEKS-aligned items at varying levels of complexity. The Topic 2 Assessment provides items at DOK levels one, two, and three. Items ask students to find measurements and values, apply algebra skills, and draw conclusions based on evidence. Assessments throughout the course provide TEKS-aligned items at varying levels of complexity. The Topic 3 Performance Task provides items at DOK levels one, two, and three. Items ask students to classify transformations, describe possible rigid transformations to create a given scenario, and use transformations to create an image.

The materials include various types of assessments with varying question types at different levels of complexity, including "Do You KNOW HOW? " or "Do You Understand?" sections at the end of each lesson. Additionally, the practice and problem-solving exercises for each lesson include higher-order thinking problems to extend learning.

Assessments contain varying levels of complexity. For example, the Unit 4 Performance Task, Form A, contains questions that include continuing to draw a pattern, setting up a two-column proof in a table, and questions that require explanation.

For example, the Quick Check-in Lesson 9-2 provides questions with three levels of depth of understanding, featuring question items that involve multi-select, multiple-choice, and fill-in-the-blank options.

2.2 Data Analysis and Progress Monitoring

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.2a	All criteria for guidance met.	2/2
2.2b	All criteria for guidance met.	1/1
2.2c	All criteria for guidance met.	2/2
—	**TOTAL**	5/5

2.2a – Instructional assessments and scoring information provide guidance for interpreting student performance.

The instructional assessments in the materials provide a scoring rubric with a breakdown of the TEKS necessary for each question, as well as the "Skills Review & Practice," that can be referenced to aid students in furthering their understanding of the skill involved. For example, the "Scoring Guide" for the Topic 1 Assessment shows that Problem 2 is related to the student's knowledge of the TEKS A.5A, and that students struggling with this skill can benefit from the "Skills Review & Practice," Exercise 1.

The scoring information in the materials guides the interpretation of student performance. For example, in Lesson 5-1, the *Teacher's Edition* guides the Exit Ticket that suggests, "If students choose *C* or *D*, they may not have performed the addition correctly." The guidance further recommends plans to address misconceptions on the properties of rational exponents and how to reinforce the skills.

The materials provide guidance on assessments, such as Exit Tickets, on why a student may have chosen a particular incorrect answer and how to interpret responses. In Exit Ticket 4-1, in the assessment guide for the Geometry curriculum, guidance is provided to teachers on formative assessments as well as quick assessments for individual topics.

The materials also provide scoring rubrics for the performance tasks for each unit, allowing the teacher to interpret student performance and responses. The Topic 4 Performance Task Answer Key guides the number of points per task and the TEKS correlation, along with the specific skill to look for.

The materials contain assessments with detailed scoring information that contribute to targeted support for student needs. For example, in the *Teacher*'s *Edition*, Lesson 114, Step 4, "Quick Check," teachers are provided guidance on further instruction based on the rubric score. A score of 0 to 3 points suggests reteaching activities, and a score of 4 to 5 points suggests enrichment activities.

The materials contain references to give teachers guidance on assessments. For example, in the *Teacher's Edition Assessment Handbook*, the Topic 4 Assessment has a scoring guide that provides teachers with a reference to the depth of understanding, Skills & Review Practice, and the correlated TEKS.

2.2b – Materials provide guidance for the use of included tasks and activities to respond to student trends in performance on assessments.

The materials provide guidance on using the included activities to respond to student performance on assessments. For example, in Lessons 1-3, the *Teacher's Edition* instructs teachers on how to guide instruction based on the Exit Ticket. One suggestion is to use "How Do You Know" items 5 and 7 to reinforce the use of inverse operations to solve equations.

The materials provide guidance on using the included tasks and activities to respond to student performance on assessments. For example, in the *Teacher's* E*dition*, a table is provided in the "Quick Check" for Lesson 3-2 that guides teachers to use the "Additional Practice" and "Enrichment" for students who scored 4 or 5 points.

The materials provide instructional guidance for tasks and activities to target various skills as determined by assessment results. These are found in the online assessment data, which includes information to form groups and assign activities to fill gaps in understanding. There is an example given in the *Assessment Sourcebook*.

The materials provide teachers with guidance on responding to student task outcomes. For example, in the *Teacher Edition's*, Lesson 6-1 in the "Do You Understand? | Do You KNOW HOW?" a common error for Exercise 9 is that if a student calculates that the measure of angle *m* is 138.85°, teachers are given guidance to have the student look at the interior angles of the figure, revisit the sum of 4 obtuse angles is greater than 360°, and for students to locate a formula involving angle-sums greater than 360°.

The materials provide teachers with guidance on how to respond to student input. For instance, in the *Teacher's Edition*, Lesson 6-5, Example 5: "Try It!" teachers are given guidance on how to address a common error. Students' common error is that they may answer 90° since the figure is a square. Teachers are given guidance to have these students draw a diagram and highlight the angle whose measure they need to find, and discuss properties of rectangles and rhombuses to find the answer.

2.2c – Materials include tools for teachers to track student progress and growth, and tools for students to track their own progress and growth.

In the *Teacher's Edition*, Exit Ticket activities are provided within the units so that teachers are able to monitor and track student success. Each Exit Ticket in the materials provides a tool for students to track their progress by selecting "Got it," "Need help," or "Working on it" for a math goal and a language goal. For example, the Lesson 7-4 Exit Ticket states the math goal as, "I can use quadratic functions to model real-world situations," and the language goal as, "I can orally justify a quadratic model of data."

The materials include a "Student Progress and Growth Teacher Tool" that helps teachers track student growth in each of the essential skills practiced in each topic. For example, one skill listed in Topic 1 is to "solve mathematical and scientific formulas, and other literal equations, for a specified variable." The skill

is identified in Lessons 1–4, and the teacher is provided space to assess student progress before, during, and after the lesson.

The materials include online assessments with a data tracker that enables teachers to track progress across a unit or multiple units. Although there is no full access to the online assessments, there are "Do You Understand?" and "Do you KNOW HOW?" questions within each lesson practice assignment that allow students to gauge their understanding of the topics.

The materials include tools for teachers to track student progress and growth. For example, in the Texas Reviewer Materials, Student Progress and Growth Teacher Tool, the PDF contains tracking for the TEKS on each topic, such as Topic 4. The tracking sheet shows the TEKS and classifies which lessons the TEKS is in. For example, TEKS G.6C is in Lessons 4-3, 4-4, 4-5, and 4-6. There are columns for progress monitoring for "Before Topic," "During Topic," and "End of Topic."

The materials include tools for students to track their progress and growth. For example, students are given opportunities to monitor their progress for Topic 8: "Right Triangles and Trigonometry." The progress tool contains a table that includes Lessons, Math Goals, Before Topics, During Topics, and After Topics. For example, the Math Goal for Lesson 8-1 is "I can prove the Pythagorean Theorem using similarity and establish the relationships in special right triangles."

3. Supports for All Learners

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

3.1 Differentiation and Scaffolds

Guidance marked with a (T) refers to teacher-facing components. Guidance with an (S) refers to student-facing components.

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.1a	All criteria for guidance met.	3/3
3.1b	All criteria for guidance met.	2/2
3.1c	All criteria for guidance met.	2/2
—	**TOTAL**	7/7

3.1a – Materials include teacher guidance for differentiated instruction, activities, and paired (scaffolded) lessons for students who have not yet reached proficiency on grade-level content and skills.

The materials provide teacher guidance for differentiated instruction for students who have not yet reached proficiency in each lesson through "Support Student Understanding" instructions in the *Teacher's Edition*. For example, in Lesson 6-6, the "Support Student Understanding" section informs teachers that some students may struggle to organize criteria for proving special parallelograms and guides them in helping students create a table to facilitate this understanding. The instructions also provide prompts for teachers to ask guiding questions and instruct students to trade papers with a partner to check their work.

The materials provide teacher guidance for activities and paired lessons for students who have not yet reached proficiency in each lesson through guidance on the "Quick Check." The "Quick Check" guidance in the *Teacher's Edition* for Lesson 9-1: "Polygons and the Coordinate Plane," instructs teachers to use the "Reteach to Build Understanding" activity, the "Mathematical Literacy and Vocabulary" activity, and the "Lesson Virtual Nerds Videos" to help students who are not showing proficiency on the Exit Ticket.

The materials include teacher guidance for assigning activities, such as "Additional Practice" and "Reteaching to understand," found in the "Practice" category on the homepage, which the teacher can assign based on students' specific math needs. At the end of the lesson, a "Quick Check" can be assigned and evaluated by the teacher. Based on the student's score, the teacher can then assign the appropriate differentiated assignment. Refer to Topic 5, Lesson 4: "Quick Check," and the "Reteach to Understand" document.

The materials include teacher guidance for differentiated instruction for students who have not yet reached proficiency on grade-level content and skills. For example, on the Lesson 9-1 "Quick Check,"

students who score 3 points or less out of 5 points are given "Lesson Virtual Nerd Videos." For instance, the first video discusses how to find the area of a parallelogram in the coordinate plane.

The materials include teacher guidance for differentiated activities to support students who have not yet reached proficiency in grade-level content and skills. For example, students who receive 0, 1, 2, or 3 out of 5 points on the "Quick Check" for Lesson 9-1 are given activities to develop proficiency, such as those in Mathematical Literacy and Vocabulary. This practice involves matching words with their corresponding definitions.

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)

The materials include embedded supports for vocabulary in the form of "Language Routines" and "Math Talk/Data Talk" in each lesson. Topic 1 lists these routines and procedures for each lesson in the "Topic Opener." Some of the included routines are "compare and connect," "slow reveal graphs," "critique, correct, and clarify," and "find a rule."

The materials provide pre-teaching for vocabulary and references in text in the "Linguistic Accommodations" section at the beginning of each topic in the *Teacher's Edition.* Topic 1: "Linguistic Accommodations," provides a "Context Setting Vocabulary" that instructs teachers to pre-teach key terms, including line segment, segment, ray, and others, for Lesson 1 to ensure students understand the meanings and make sense of the problem situation. Each lesson in the topic has terms listed in this source.

The materials include teacher guidance on teaching academic vocabulary and symbols through hands-on experiences, manipulatives, or visuals. At the beginning of Topic 5, Lesson 4, there is "Targeted ELPS Support" that provides the teacher with questions about triangles that can be posed for each level of learner. There is also an online vocabulary builder that students can use at the beginning of each unit to pre-teach vocabulary.

Another example, at the beginning of Topic 5, Lesson 4, is "Language Routine Co-Craft Questions and Problems," which provides the teacher with an activity that students can work on in pairs with some key leading questions for discussion.

The materials include embedded supports for vocabulary and references in text. For example, in the *Teacher*'s *Edition*, Lesson 10-3, "Targeted ELPS Support," Intermediate, teachers are given guidance to ask students in Example 5, "How many trucks must pass through the tunnel at the same time? What word indicates this?"

The materials include pre-teaching for vocabulary and references in the text. For example, in the *Teacher's Edition*, Lesson 7-4: "Targeted ELPS Support," teachers are given guidance in Example 3 to ask

students, "Which parts of the window are horizontal? Diagonal? Vertical? Parallel to each other?" Teachers also display figures to demonstrate each type of line.

3.1c – Materials include teacher guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skill.

The materials provide teacher guidance for differentiated instruction for students who have demonstrated proficiency in each lesson's "Explore & Share." For example, the *Teacher's Edition* provides guidance for early finishers in the Lesson 11-3 "Explore & Share" activity on slicing a cube that prompts teachers to ask students how a place could intersect a cube to form a point, a segment, a triangle, a quadrilateral, a pentagon, a hexagon.

The materials provide teacher guidance on using enrichment and extension activities for students who have demonstrated grade-level proficiency at the end of each lesson's "Quick Check." For example, the T*eacher's Edition* for Lesson 11-3, Three-Dimensional Figures and Cross Sections, includes a "Quick Check" with instructions for teachers to use "Additional Practice" and "Enrichment" activities for students who answered four-to-five questions correctly.

The materials direct teachers to use activities, such as "Additional Practice" and "Enrichment," found in the "Practice" category on the homepage, which teachers can assign based on students' specific math needs. At the end of the lesson, a "Quick Check" can be assigned and evaluated by the teacher. Based on the students' scores, the teacher can then assign the appropriate differentiated assignment. Refer to Topic 5, Lesson 4, "Quick Check," and the "Enrichment" document.

The materials include activities, such as expanding the learning games that can be assigned digitally. Guidance is provided for these at the end of the lesson after the practice problems.

The materials include extension activities. For example, in the *Teacher's Edition,* Lesson 8-2, Example 3, teachers are given guidance to "extend student thinking" by having students explore the relationship between complementary angles, such as, "If $\sin A = \cos B$, what can you say about $\angle A$ and $\angle B$?"

The materials provide teacher guidance for differentiated instruction for students who have demonstrated proficiency in grade-level content and skills. For example, students who score a 4 or 5 out of 5 points on the "Quick Check" from Lesson 8-2 are given an enrichment worksheet that includes explained examples. Students read the examples and complete exercises 1 through 13.

3.2 Instructional Methods

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.2a	All criteria for guidance met.	4/4
3.2b	All criteria for guidance met.	2/2
3.2c	All criteria for guidance met.	3/3
—	**TOTAL**	9/9

3.2a – Materials include explicit (direct) prompts and guidance to support the teacher in modeling and explaining the concept(s) to be learned.

The materials include guidance to support teachers in explaining and modeling concepts through suggested whole-group and small-group discussions, example student responses, and exemplar models to use during instruction. For example, Lesson 12-1, Probability Events, in the *Teacher's Edition* identifies when the teacher should provide discussion prompts for whole class and small group, provides sample student responses for prompts, and in the "Common Error" box for "Try It!" 4, guides the teacher to use the exemplar model of rolling an odd or even on a number cube, as well as the probability of landing on heads twice when flipping a coin.

The materials provide explicit prompts to support the teacher in explaining and modeling concepts to be learned in every lesson of the *Teacher's Edition*. For example, the "Topic Opener" for Topic 3 provides question prompts to help the teacher guide the student in building an understanding of how an airplane is symmetric. Prompts are also provided later in the lesson to help students connect learning back to this opener.

Materials contain well-scripted lesson plans that provide teachers with explicit prompts, in the form of leading questions, to ask before, during, and after the lessons. There are also questions about reasoning, analysis, and procedural understanding. Lesson 1-1, which covers measuring line segments, provides a detailed guide using the 5E model for teachers to progress through the lesson. The teacher poses open-ended questions, such as, "Have you ever used a tape measure to find the length of something? Describe the process you used." Lesson 5-4: Inequalities in One Triangle, provides a detailed guide for teachers to progress through the lesson using the 5E model. The teacher is instructed to use straws of specific and varied lengths to allow students to investigate how a triangle is formed using a model and poses the question, "Start with the 4-cm and 6-cm straws. Which of the other straws cannot be used with them to make a triangle? Why?"

The materials include explicit prompts to support the teacher in modeling and explaining the concepts to be learned. For example, in the *Teacher's Edition*, Lesson 1-3, Example 1, teachers are given the explicit prompt, "How is the midpoint related to the mean of a set of numbers?" to help explain the concept of midpoints to students. In Example 2, teachers are given the explicit prompt, "For the Midpoint Formula, should it matter if you choose A or B for Point 1?" to help model Midpoints using either point as Point 1.

Another example, in the *Teacher*'s *Edition*, Lesson 6-2, Example 5, teachers are given guidance for explaining a common error, such as students using the given length of the midsegment as the length of a base and applying an incorrect theorem. To support student understanding, teachers are given guidance to have students practice modeling the Trapezoid Midsegment Theorem using a table with base length, midsegment length, and base length.

3.2b – Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches.

The materials include a "Program Overview," which provides teacher guidance for effective lesson delivery using a variety of approaches, including the Concrete, Representational, Abstract (CRA) model, virtual manipulatives, and interactives. For example, the "Concrete Representational Abstract" section of the program guide instructs teachers to use virtual manipulatives to support student learning and provide multiple representations of concepts. Additionally, it instructs teachers to utilize interactives, such as the Desmos graphing calculator and geometry tool, to help students visualize, investigate, and generalize mathematical concepts.

Each lesson in the T*eacher's Edition* includes teacher guidance for effective lesson facilitation through the four-step instructional design ("Explore," "Understand & Apply," "Practice & Problem Solving," and "Assess & Differentiate"). For example, Lesson 4-6 provides guidance for both small-group and whole-group instruction, including implementing tasks that promote reasoning and problem-solving, facilitating mathematical discourse, establishing mathematical goals, using and promoting mathematical representations, and posing purposeful questions.

Materials contain lesson plans that provide teachers with various methods for delivery, including small-group explorations, whole-group discussions, and individual problem-solving tasks. Lesson Plan 4-2 has four stages: "Explore & Share," "Understand & Apply," "Practice & Problem Solving," and "Assess & Differentiate." In each section, a variety of methods are available for lesson presentation, including teacher-led questioning, individual student examples, group checks, small-group discussions, and individual exit tickets.

The materials incorporate and provide guidance on more than one instructional approach, such as direct instruction, guided practice, inquiry-based learning, learning, blended learning, exploratory learning, collaborative learning, and project-based learning. Some projects can be assigned in each unit for students to explore the concepts in more depth. Unit 6 offers four different types of projects that appeal to various students based on their end product, allowing them to create, design, invent, or write about the topic.

The materials include teacher guidance using a variety of instructional approaches. For example, in the *Teacher's Edition*, Lesson 5-4 Explore & Share, teachers are given guidance on implementing tasks that promote reasoning and problem-solving as a whole class, including a discussion on what manipulatives can model for triangle side lengths and the main features of a triangle. During the "Explore & Share"

activity, teachers are given guidance to support students' thinking as they use varying drinking straw lengths to create triangles in small groups.

The materials include teacher guidance using a variety of instructional approaches. For example, in the *Teacher's Edition*, Lesson 7-5, Example 3: "Try It!" students write steps using proportions to find the lengths of line segments in triangles. Teachers are given guidance to inform students that the ratios that make up the proportion must always be the same for those who struggle to set up the proportion correctly.

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.

The materials support guided, independent, and collaborative practice and provide recommendations for effective implementation of these types of practice in each part of the lesson. The "Program Overview" includes a section titled, "Guided, Collaborative, and Independent Practice," which explains the types of practice and which parts of the lessons are best combined with the practice.

The materials in the *Teacher's Edition* guide educators to effectively implement practices for each lesson. For example, in Lesson 7-2: "Similarity Transformations," teacher guidance is included to support whole-group discussion on similarity, small-group productive struggle on mapping one figure to another, and independent practice with manipulatives to understand compositions of transformations.

Materials contain lesson plans that provide the teacher with various examples and types of problems to engage learners. There are also questions about reasoning, analysis, and procedural understanding. Lesson 10-1: "Arcs and Sectors," provides a detailed guide that utilizes whole-group discussion, small-group investigation, and individual problem-solving.

Materials provide various opportunities for students to practice during the lesson, including guided practice and small group collaboration, during Stages 1 and 2. During Stage 3, students are assigned problems to work on individually for practice, and in Stage 4, learning is assessed individually through an exit ticket. See Lesson 10-2.

The materials include recommended structures to support effective implementation. For example, in the *Teacher's Edition,* Lesson 34: "Explore & Share," teachers are given recommendations to begin implementing tasks as a whole class, followed by small groups during the task, and then whole class after the task. The materials also include guidance for teachers to support effective implementation of the "Explore & Share." For example, during the task, teachers are given sample responses for each part and possible questions they can ask, such as, "How many counterexamples do you need to show that a statement is not true?"

The materials include multiple types of practice, such as guided and independent practice. For example, in the *Student Edition*, Lesson 11-2, Example 1, students are given guidance on decomposing and finding the area of a composite figure. In the Example 1 "Try It!" students use the exact figure with a different composition. After going over all examples, students complete similar composition area problems independently in "Do You KNOW HOW?," Numbers 5 through 7.

3.3 Support for Emergent Bilingual Students

An emergent bilingual student is a student who is in the process of acquiring English and has another language as the primary language. The term emergent bilingual student replaced the term English learner in the Texas Education Code 29, Subchapter B after the September 1, 2021 update. Some instructional materials still use English language learner or English learner and these terms have been retained in direct quotations and titles.

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.3a	All criteria for guidance met.	2/2
3.3b	All criteria for guidance met.	1/1
3.3c	All criteria for guidance met	8/8
3.3d	This guidance is not applicable to the program.	N/A
—	**TOTAL**	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.

Materials include teacher guidance on providing linguistic accommodations for students with varying levels of language proficiency in each lesson. For example, the "Targeted ELPS Support" section in Lesson 8-2 of the *Teacher's Edition* provides teachers with guidance and prompts for supporting students at the pre-production, beginning, intermediate, high-intermediate, and advanced levels of English proficiency.

Each topic in the materials guides linguistic accommodations for various levels of language proficiency in the *Teacher's Edition*. For example, the "Linguistic Accommodations" in Topic 6: "Quadrilaterals and Other Polygons," details the opportunities to interact with the topic's vocabulary words, explains transferable and non-transferable skills, and outlines which ELPS standards are most applicable to each lesson in the topic.

The materials provide educators with guidance on incorporating multiple levels of support to help students build academic language, such as sentence stems, graphic organizers, or word banks. For example, in Lesson 1-4 for "Pre-production" students, the prompt reads, "What does row mean?" but for Intermediate, before asking the question, the prompt indicates, "Have students circle the words row and column in a copy of the example. Read through the example. Have them write a description of the words." Another example is at the beginning of the lesson, where linguistic accommodations are provided to help connect prior vocabulary to new vocabulary terms.

The materials include teacher guidance on providing linguistic accommodations for students with varying levels of language proficiency. For example, in the *Teacher's Edition*, Lesson 3-4, Example 4, the materials contain "Targeted ELPS Support" for various levels of language proficiency, such as "Pre-Production,"

which gives guidance for teachers to direct students to point to the original image and the final image and explain that two changes happen between the two images. In the Intermediate paragraph, the materials provide guidance for teachers to ask students to say words such as *translation*, *reflection*, and *rotation*. An additional example is in the *Teacher's Edition*, Lesson 4-5, Example 2, where the materials contain "Targeted ELPS Support" for various levels of language proficiency, such as Intermediate, which provides teachers with guidance to ask students to use words such as *right angle* when speaking about the wingsuit in the example. In the Advanced paragraph, the materials provide teachers with guidance on pairing students and summarizing using the Hypotenuse-Leg Theorem in the given context.

3.3b – Materials include implementation guidance to support teachers in effectively using the materials in state-approved bilingual/ESL programs.

The materials include a section in the "Program Overview" titled, "Supporting Emergent Bilingual Learners," which outlines how educators can use each part of the materials in conjunction with the ELPS. Specific supports mentioned include Vocabulary Builder, Language Goal Self-Assessment, Language Routines, and Visual Glossary.

Each topic in the *Teacher's Edition* of the materials provides a "Linguistic Accommodations" section to support teachers in effectively using the materials in connection with ELPS. For example, Unit 1, Foundations of Geometry Linguistic Accommodations, provides a table showing each lesson and which of the ELPS is best connected with that lesson.

The materials provide teacher guidance for implementing ELPS; however, there is no guidance on using the materials in state-approved bilingual/ESL programs.

The materials include implementation guidance to support teachers in effectively using the materials in bilingual/ESL programs. For example, in the *Teacher's Edition*, Topic 4: "Linguistic Accommodations," teachers are given a preview of vocabulary in each lesson, accompanied by activities such as Vocabulary Cards.

The materials include guidance for teachers to support emergent bilingual (EB) learners. For example, in the "AGA Program Overview," "Supporting Emergent Bilingual Learners," teachers are given an overview of supports such as "Vocabulary Builder," "Language Goal Self-Assessment," and "Linguistic Accommodations."

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.

The 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 discourse. For example, in the "Vocabulary Builder" for Lesson 3-2, guidance is provided for teachers to lead a class discussion with three students modeling a triangle and moving along tiles on the floor. The discussion includes background knowledge of images, preimages, and translations, and enhances student comprehension through human representation. The teacher is guided to lead the discussion further toward the new vocabulary of rigid transformations.

The 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 written discourse. For example, in Lesson 10-5: Secant Lines and Segments of the *Teacher's Edition*, the Targeting ELPS Support prompts teachers to have students identify angles that intercept the same arc and justify their answers by writing complete sentences that include the words "intercept" and "inscribed." Teachers are also guided to have students trade papers and confirm accuracy, increasing their comprehension.

The materials routinely include key terms for pre-teaching new vocabulary words and an explicit routine. For example, the teacher models how to say a word, defines it in student-friendly terms, uses visual representations, uses the word in context, and checks for understanding. In the *Teacher's Edition*, the topic opener includes a section labeled "Instructional Routines," which provides clear guidance on which segments of the lesson help build specific language routines (e.g., Discussion supports and Collect and Display).

The materials provide lesson plans with targeted strategies for supporting EB students, such as cognates, cross-linguistic connections, rephrasing suggestions, and checks for understanding. For example, a math lesson highlights cognates between English and Spanish for new math vocabulary, such as "equation" and "ecuación," and "variable" and "variable." These can be found in the *Teacher's Edition* in the "Linguistic Accommodations."

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 discourse. For example, in the *Teacher's Edition*, Lesson 2-4, Example 7: "Targeted ELPS Support," teachers are guided on how to support EB students when using slope to solve a problem. For instance, the Beginning paragraph provides teachers guidance to have students "draw a line, then discuss with a partner how to draw lines that are parallel or perpendicular to the line."

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 written discourse. For example, the *Teacher's Edition*, Lesson 6-4, Example 2: "Targeted ELPS Support," guides teachers on implementing writing when supporting EB students. The Intermediate paragraph in the materials provides teachers with guidance on helping students make connections with buildings and parallelogram cross-sections.

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.

This guidance is not applicable because the program is not designed for dual language immersion (DLI) programs.

4. Depth and Coherence of Key Concepts

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

4.1 Depth of Key Concepts

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.1a	All criteria for guidance met.	2/2
4.1b	All criteria for guidance met.	1/1
—	**TOTAL**	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.

The materials provide practice opportunities throughout each lesson for students to demonstrate depth of understanding of the topic. Each lesson contains a "Do You Understand?" and "Do You KNOW HOW?" section, which prompts students to show the use of skills and also includes "vocabulary," "error analysis," and "analyze math relationships" exercises.

The materials provide practice opportunities in instructional assessments that allow students to demonstrate a depth of understanding of the topics. For example, the Topic 4 Assessment shows items at depth of knowledge levels one, two, and three. Items ask students to verify the validity of statements, explain why figures would be considered congruent, and apply triangle congruence theorems.

The materials include various types of assessments with different question types at varying levels of understanding aligned to the TEKS. These can be found in the "Try It!" problems in the lesson introduction. Also, the practice and problem-solving for each lesson have higher-order thinking problems to extend learning. There are also Pick a Project opportunities at the beginning of each unit to help assess the depth of understanding.

The materials contain practice opportunities during lessons and instructional assessments over the course of lessons. For example, in the *Student Edition* in Lesson 74, Example 3, students are given an opportunity to practice relating altitude and geometric mean in the "Try It!" section. Example 3 asks students to find altitude *CD* and *CD* to find *AC* and *CB* using proportions, with *CD* being the geometric mean.

Students are given opportunities to show mastery on instructional assessments during the lesson. For example, in the *Teacher's Edition* Lesson 9-3, there is an Exit Ticket that asks students to determine the equation for a circle on a graph.

4.1b – Questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics TEKS.

The materials include questions and tasks throughout lessons that increase in rigor and complexity to allow students mastery of grade-level TEKS. For example, the practice provided in Lesson 2-4: "Slopes of Parallel and Perpendicular Lines," begins by asking students to determine if lines are parallel or perpendicular and progresses to asking students to write the equations of parallel and perpendicular lines. The complexity increases further through contextual scenarios and prompts that require communicating reasoning within mathematical and contextual problems.

Questions and tasks throughout each unit increase in rigor and complexity, allowing students to master grade-level TEKS. For example, Topic 4: "Triangle Congruence," begins with discussions on congruence and understanding the definition before progressing to types of triangles and the pieces of those triangles that are congruent. The lessons then have students compare triangles while learning different methods to prove triangle congruence, and finally, move them to learn about congruence in right triangles and overlapping triangles.

The materials include questions in the practice and problem-solving that become increasingly difficult as you progress through them. There are even application and performance tasks at the end of each lesson.

The materials include questions and tasks that progressively increase with rigor and complexity. For example, in the *Student Edition,* Lesson 11–1: Practice & Problem-Solving, students explain math concepts from the lesson in the "Understand" section, practice direct skills in the "Practice" section, and then apply these skills to real-world applications in the "Apply" section. For example, students learn about the surface area in Lesson 11-4 by first reviewing examples for basic figures, such as a cylinder in Example 1, then solving problems involving the surface area of composite figures in Example 7.

4.2 Coherence of Key Concepts

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.2a	All criteria for guidance met.	1/1
4.2b	All criteria for guidance met.	3/3
4.2c	All criteria for guidance met.	4/4
—	**TOTAL**	8/8

4.2a – Materials demonstrate coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts.

The materials begin by developing inductive and deductive reasoning skills by allowing students to prove and apply theorems about angles and parallel and perpendicular lines. Then, in the following units, students apply these reasoning skills as they explore congruence and similarity through transformations, which leads to an understanding of properties of quadrilaterals and trigonometric ratios. Next, students use the coordinate plane to apply concepts of congruence and similarity, and then explore the properties of figures algebraically before examining three-dimensional figures.

For each lesson in the materials, the teacher's edition provides a "Lesson Overview" with a "Coherence" section that connects current skills and concepts to previous knowledge and future topics in the course. For example, in the lesson overview for Topic 2: "Math Modeling in 3 Acts: Parallel Paving Company," the teacher is instructed that students already have knowledge of parallel and perpendicular lines and will apply this knowledge to develop a mathematical model for a problem situation. Later in the course, students will refine their mathematical modeling skills.

The materials include a unit overview that explains the big ideas, tools, and representations used throughout the unit, as well as describes connections to previous units where students acquired prior knowledge needed for the upcoming unit. This can be found in the "Key Concepts," "Coherence," and "Balance" sections of the Topic Overview. The "Topic Planner" also provides a map of the entire unit, including the TEKS, vocabulary, objectives, and key understandings.

The materials demonstrate coherence across units by explicitly connecting mathematical concepts. For example, Lesson 6-2, Example 1 provides a study tip to indicate that both *B* and *D* lie on the perpendicular bisector. This concept is also seen in Topic 5. For example, students connect ideas from Topic 2: "Parallel Lines" in Lesson 6-3, Example 3. The parallelograms have dashed lines extended on the example, suggesting to students to "visualize a parallelogram as parallel lines intersected by transversals that are also parallel."

4.2b – Materials demonstrate coherence across units by connecting the content and language learned in previous courses/grade levels and what will be learned in future courses/grade levels to the content to be learned in the current course/grade level.

The materials provide a "Scope and Sequence Grades 6–8, Algebra I, Geometry, Algebra II" in the *Teacher's* E*dition*, which charts connections of skills and concepts from each course by mathematical strand. For each strand, a list of the skills and concepts taught in each grade level is given, along with the Topic number in the corresponding course. For example, in the strand "Two- and Three-Dimensional Shapes," the geometry course lists the application of formulas to two- and three-dimensional figures, which occurs in Topic 11. The chart also shows this is preceded by developing transformational geometry concepts in Grade 8, Topic 6, and is not connected to a topic in the Algebra II course that would follow.

The materials provide a "Linguistic Background" section at the beginning of each topic in the T*eacher's Edition*. This section contains a list of topic vocabulary, prior terms, and upcoming terms to connect language to prior and future lessons and courses. For example, Topic 7: "Linguistic Accommodations," lists *center of dilation*, *similarity transformations*, and *geometric mean* under "Topic Vocabulary." "Prior Terms" include the *midsegment of a trapezoid*, and "Upcoming Terms" include *Pythagorean triple*, *cosine*, and *sine*.

The materials include a Math background section with a coherence portion that includes connections to future grade concepts and sometimes provides connections to prior grade concepts, as well as what will be learned in the present unit. In Unit 1, they connect topics learned in Algebra 1 and eighth grade with current geometry topics and also connect to Algebra 2 and pre-calculus concepts using common vocabulary and problem-solving techniques.

The materials demonstrate coherence by connecting content and language learned in previous courses. For example, in the *Student Edition*, Lesson 2-4, Example 3, students check the parallelism of two lines using the slope formula. Vocabulary words such as parallel, slope, and line are seen in previous courses, such as Algebra 1. The slope formula has also been seen previously in Algebra 1.

The materials demonstrate coherence by connecting content and language learned in future courses. For example, in the *Student Edition*, Lesson 8-5, Example 2, students "Use Angles of Elevation and Depression" to find the minimum height of a rain barrel. Students formulate and solve trigonometric equations in this example. This content is also seen in future courses such as pre-calculus.

4.2c – Materials demonstrate coherence at the lesson level by connecting students' prior knowledge of concepts and procedures from the current and prior grade level(s) to new mathematical knowledge and skills.

Each topic within the materials contains a "Math Background Coherence," which connects concepts and procedures from the current grade level to new knowledge and skills. For example, the Topic 8 Math

Background Coherence demonstrates that students will apply trigonometric evaluations and triangle congruency concepts from Topic 7 to determine the values of angles in the coordinate plane and relate trigonometric values for angles to reference angles in Topic 8.

When applicable, the materials connect concepts and procedures from prior grade levels to new mathematical processes and skills. For example, for Lesson 9-1, Example 1, the *Teacher's Edition* provides a "Use and Connect Mathematical Representations" section to guide teachers in connecting slope and point-slope form of linear equations to the current lesson.

The materials include a "Math Background" section with a coherence portion that contains connections to future grade concepts and sometimes provides connections to prior grade concepts, as well as what will be learned in the present unit. In Unit 1, they connect topics learned in Algebra 1 and eighth grade with current geometry topics and also connect to Algebra 2 and pre-calculus concepts using common vocabulary and problem-solving techniques.

The materials demonstrate coherence at the lesson level by connecting students' prior knowledge of concepts and procedures from the current grade level. For example, in the *Student Edition*, Lesson 6-3, Example 5, students "Explore the Diagonals of a Parallelogram" using theorems and definitions from previous lessons, such as the definition of segment bisector from Lesson 5-1. Similar procedures are seen in prior lessons, such as the two-column proof in Lesson 4-5, Example 3.

The materials demonstrate coherence at the lesson level, connecting concepts and procedures from the prior courses to new mathematical knowledge and skills. For example, in the *Student Edition,* Lesson 7-5, Example 1, students explore proportions from parallel lines, the side lengths of the smaller triangle vary directly with the side lengths of the larger triangle. These concepts are also seen in direct variation in Algebra 1. The procedures involve solving a linear equation, a concept also introduced in prerequisite courses such as Algebra 1 and Pre-Algebra.

4.3 Coherence and Variety of Practice

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.3a	All criteria for guidance met.	4/4
4.3b	All criteria for guidance met.	4/4
—	**TOTAL**	8/8

4.3a – 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 across lessons and topics in the form of Spiral Review exercises on Savvas Realize. For example, 2-4 Spiral Review asks students to practice writing conditional and biconditional statements and to determine the truth values of statements that originate from a previous topic.

Each topic in the materials contains a Topic Review that provides spaced retrieval opportunities for previously learned skills across lessons in the topic. For example, Topic 2, Topic Review contains vocabulary review, practice algebraically solving for measures of angles from a pair of parallel lines cut by a transversal, developing reasoning around why vertical lines are excluded from Theorems 2-4, and identifying types of geometry from descriptions.

The materials provide opportunities for spaced retrieval during the "Math Talk" portions at the beginning of the lessons, as in Lesson 4-3. They embed spaced retrieval by integrating problems on previously learned concepts, such as the discussion of congruence and the Pythagorean theorem from a previous unit.

The materials provide spaced retrieval opportunities for students to practice previously learned skills and concepts across lessons. For example, in the *Student Edition*, Lesson 3-4, Example 2, students recall reflections, translations, and rotations to describe the transformation from triangle *ABC* to triangle *A'B'C'*.

The materials include spaced retrieval opportunities for previously learned skills and concepts, allowing students to review them in previous units. For example, in the *Student Edition*, Lesson 9-2, Example 2, students "write a coordinate proof" using concepts of proofs from previous units, such as Topic 1, Lesson 1-7: "Writing Proofs" and skills of finding the midpoint of earlier units, such as Topic 1, Lesson 1-3: "Midpoint and Distance."

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

The materials provide interleaved practice opportunities with previously learned skills and concepts across lessons in "Explore & Share" exercises as well as in "Practice and Problem Solving." For example, Lesson 5-3: "Medians and Altitudes," begins with an "Explore & Share" where students use angle

bisectors (Lesson 51) to talk about concurrency, and then includes problems in the "Practice & Problem Solving" that ask students to identify altitudes, angle bisectors, medians, and perpendicular bisectors.

Materials provide interleaved practice opportunities with previously learned skills and concepts across topics in "Practice & Problem Solving" exercises. For instance, "Practice & Problem Solving" from Lesson 6-2: "Kites and Trapezoids," asks students to write a two-column proof (a skill from Topic 1) to show that the diagonals of an isosceles trapezoid are congruent. Students are also asked to prove that the angles in a given kite with a diagonal are congruent, which requires students to utilize concepts of congruency (Topic 4).

The materials provide interleaved practice opportunities with previously learned skills and concepts across lessons. For example, in the *Student Edition,* Topic 5: "Concepts & Skills Review," in Lessons 5-1, 5-3, and 5-4, there are "Analyze" math relationships Problems 12, 23, 31, where students must use concepts learned in other units and apply that knowledge to solve these problems.

The materials provide interleaved practice opportunities with previously learned skills and concepts across lessons. For example, in the *Student Edition* Topic 9: "Concepts & Skills Review," students are given opportunities to practice and solve problems in exercises for Lessons 9-1, 9-2, and 9-3. For instance, students find the area and perimeter for Number 8, prove the type of quadrilateral given coordinates for Number 13, and write an equation for a circle given its center and radius on Number 15.

The materials provide interleaved practice opportunities with previously learned skills and concepts across units. For example, in the *Teacher's Edition Assessment Sourcebook*, Benchmark 2, provides students with opportunities to demonstrate their understanding of the first four units. For instance, Question 1 asks students about transformations, which is also in Topic 3: "Transformations," Question 17 asks students about distance, which is also in Topic 1: " Foundations of Geometry"; Question 30 asks students about congruence, which is also in Topic 4: "Triangle Congruence."

5. Balance of Conceptual and Procedural Understanding

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

5.1 Development of Conceptual Understanding

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.1a	All criteria for guidance met.	3/3
5.1b	All criteria for guidance met.	1/1
5.1c	All criteria for guidance met.	1/1
—	**TOTAL**	5/5

5.1a – Questions and tasks require students to interpret, analyze, and evaluate models and representations for mathematical concepts and situations.

The materials provide questions and tasks that require students to interpret, analyze, and evaluate models and representations for mathematical concepts and situations in each topic. In Topic 3: "Math Modeling in 3 Acts: The Perplexing Polygon," students are first asked to analyze a video of a mathematical illusion and then evaluate the position of the red arrow for all possible rotations within the illusion. Students are finally asked to interpret which transformations would result in the same position of the red arrow.

The materials provide questions and tasks that require students to interpret, analyze, and evaluate models and representations in each lesson. For example, Lesson 11-5, Volumes of Prisms and Cylinders, in the *Student Edition* asks students to interpret how the volume of a storage shed would change if the length of the triangular base is reduced by half, analyze the volume of right and oblique cylinders that have the same height and cross sectional area, and evaluate the volume of different canisters which are prisms.

The materials provide opportunities for students to interpret, analyze, and evaluate models in the "Use a problem-solving model" problems, as in Topic 10, Lesson 1, Problem 33, where students are asked to find the area of the center section of a drop-leaf table. Another example is in Topic 8, Lesson 1, Problem 25, where students are asked to determine if a triangle will fit into a frame of a specific size.

The materials include questions that require students to analyze models for mathematical concepts and situations. For example, in the *Student Edition*, Lesson 11-4, Practice & Problem Solving, Apply, Number 25, asks students to find the minimum surface area needed to create both drum heads and the wood used to make the body of the dhol drum.

The materials include tasks that require students to interpret and evaluate models for mathematical concepts and situations. For example, in the *Student Edition*, Lesson 12-4, "Explore & Share," two models are given to represent the probability of getting green lights at three stoplights on the way to school.

Students are given opportunities to explain which model represents the situation in context. Students also compare the probabilities of green lights with differing orders.

5.1b – Questions and tasks require students to create models to represent mathematical situations.

The materials provide questions that require students to create models to represent mathematical situations. For example, Lesson 11-1 in the *Student Edition* gives an example of a honeycomb made of hexagon cells and asks students to draw a diagram of a hexagon to help find the apothem and the area of a cell.

The materials provide tasks that require students to create models to represent mathematical situations. For example, the T*eacher's Edition* of Topic 8, "Math Modeling in 3 Acts: The Impossible Measurement," asks students to create and label a diagram to determine the height of a tree.

The materials provide opportunities for students to create models representing mathematical situations in Pick a Project at the beginning of each topic. Topic 6 has a couple of projects that would be suitable.

The materials include questions that require students to create models to represent mathematical situations. For example, in the *Student Edition,* Lesson 1-2: Performance Task, Question 32, students create similar polygons using a compass and straightedge.

The materials include questions that require students to create models to represent mathematical situations. For example, in the *Student Edition,* Lesson 4, Explore & Share, students create triangles using a variety of straw lengths.

5.1c – Questions and tasks provide opportunities for students to apply conceptual understanding to new problem situations and contexts.

Questions in the material provide students with the opportunity to apply their conceptual understanding to new problem situations and contexts. For example, in Lesson 8-3: "The Law of Sines," in the S*tudent Edition*, students are asked to use the sine ratio to calculate ratios in a 30/60/90 triangle and determine if this ratio would be the same in any 30/60/90 triangle. Students then explore how these sine ratios can be related in any triangle to derive the Law of Sines.

Tasks in the material provide students with the opportunity to apply their conceptual understanding to new problem situations in a Performance Task for each lesson. Lesson 12-1: "Probability Events," in the S*tudent Edition*, includes a performance task that asks students to apply the concept of probability events to determine whether someone should pack an umbrella based on a weather forecast.

The materials provide opportunities for students to apply conceptual understanding to new situations and contexts by applying math to real-life situations in the justification of mathematical arguments,

problems in the practice, and problem-solving section. Students are asked to determine if the chocks are the right height for safety purposes.

In Topic 8-2, students are asked to determine how much rope is needed to tie down an inflatable gorilla at three points.

The materials provide students with opportunities to apply their conceptual understanding to new contexts. For example, in the *Student Edition*, Lesson 4-4: Practice & Problem Solving, Question 21, students apply triangle equality properties to explain why the distance from *B* to *E* is the same as the distance from *B* to *C*, the length of the new bridge.

The materials provide students with opportunities to apply their conceptual understanding to new contexts. For example, in the *Student Edition*, Lesson 11-8: "Practice & Problem Solving," Number 21, students apply changing dimensions in the context of changing the volume of cans of soup with the same radius and different heights.

5.2 Development of Fluency

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.2a	All criteria for guidance met.	2/2
5.2b	All criteria for guidance met.	3/3
5.2c	All criteria for guidance met.	3/3
5.2d	All criteria for guidance met.	1/1
—	**TOTAL**	9/9

5.2a – Materials provide tasks that are designed to build student automaticity and fluency necessary to complete grade-level tasks.

The materials provide tasks that build student fluency with grade-level mathematics in each lesson. For example, in the *Student Edition,* Lesson 3-3: Rotations, students are given sufficient practice to build accuracy and efficiency with rotations. They are asked to distinguish between and use rotations, reflections, and other transformations to build flexibility.

The materials provide skills review and practice to help build automaticity with grade-level mathematics. Each lesson includes a "Quick Check" with guidance in the T*eacher's Edition* on assigning specific "Skills Review and Practice" digital assignments based on the questions students missed. For example, the T*eacher's Edition* for Lesson 2-3, "Quick Check" suggests teachers assign "Skills Review and Practice," "G12 Properties of Parallel Lines" to students who miss Question one.

Materials include tasks such as the "Try It!" problems throughout the lesson to help build fluency, as well as various types of practice problems to help build automaticity. Enrichment is also provided to facilitate further practice and build fluency. Lesson 5-3 has five "Try It!" problems throughout the lesson. Lesson 5-3 has 13 problems for on-level learners to help build automaticity.

The materials provide tasks that build student fluency to complete grade-level tasks. For example, the *Student Edition,* Lesson 5-3: Do You KNOW HOW? and practice gives students opportunities to practice finding medians and altitudes.

The materials provide tasks that help students develop automaticity in completing grade-level tasks. For example, in the *Teacher's Edition*, "Quick Check" for Lesson 6-3, students are given "Skills Review and Practice G31" for any missing items on the "Quick Check."

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.

The materials provide opportunities for students to practice efficient and accurate application of mathematics within units. For example, in the *Teacher's Edition* for Lessons 4-5, "Congruence in Right

Triangles," students are given two different student solutions for proving that two triangles are congruent. Teachers are guided to have students analyze the accuracy of the two arguments, question what different postulates and theorems could be used to prove congruency, and determine the least amount of information needed to prove congruency.

The materials provide opportunities for students to practice efficient and flexible application of mathematics in "Math Modeling in 3 Acts" for each topic of the course. For example, Act 3 of Topic 2: "Math Modeling in 3 Acts" asks students to analyze and evaluate the efficiency of the approach chosen to solve the problem. Students are also directed to consider that, though they could choose the top, middle, or other line on the road to model the problem (affecting the equation models), their answers remain the same.

The materials provide students with opportunities to practice efficient, flexible, and accurate mathematical procedures throughout a lesson. In Lesson 6-3 entitled, "Properties of Parallelograms," students are asked questions like, "Why might it be useful to start analyzing a parallelogram by decomposing it into triangles?" and "Under what conditions can a pair of consecutive angles in a parallelogram be congruent? Explain." which allows the students to not only choose a correct strategy but to understand why it is efficient, and how we can be flexible in various problem solving situations.

Materials provide questions that allow students to evaluate a process as correct and also to determine its efficiency by engaging in group discussion for the "Do You Understand and Do You KNOW HOW?" segments in the practice problems.

The materials provide students with opportunities to practice applying efficient mathematical procedures. For example, in the *Student Edition*, Lesson 5-2: "Explore & Share," students communicate their thinking about how to find the quickest way to find the centroid point *D*.

The materials provide opportunities for students to practice applications of flexible mathematical procedures. For example, in the *Student Edition*, Lesson 4-2, Apply, Number 27, students are given the opportunity to solve for the side lengths of a triangle given the height and explain the method they use to calculate the length.

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.

The materials offer students opportunities to practice efficient and accurate mathematical procedures and processes through hands-on and digital games. For example, Topic 2: "Parallel and Perpendicular Lines," includes a hands-on game, "Hacked!," with suggestions to be assigned during or after Lesson 2-3 for students to practice efficiency and accuracy with angles.

The materials provide opportunities for students to practice flexibility and accuracy in procedures and processes throughout units. For example, in the *Teacher's Edition* for Lesson 9-2, students see two

different processes for showing that three vertices form a right triangle and are asked to verify the accuracy of the processes. Teacher guidance is provided to ask students if they would prefer one method over the other, and discuss if either method could be generalized to determine if any three vertices form a right triangle.

Materials provide opportunities for students to evaluate solutions or procedures for solving problems in the "Do You Know, Do You Understand?" segments of the practice problems. In Lesson 5-3, Problem 3, students are asked to examine a triangle and determine if the centroid is adequately labeled or not and explain their reasoning.

Materials provide opportunities for students to evaluate solutions or procedures for solving problems in the "Do You Know, Do You Understand?" segments of the practice problems. In Lesson 3-5, Problem 15, students are asked to determine if a shape has 90-degree rotational symmetry and, if so, what other symmetry it must also have, and explain their reasoning.

The materials provide students with opportunities to evaluate procedures for efficiency, flexibility, and accuracy. For example, in the *Student Edition*, Lesson 11-4: Explore & Share, students evaluate which method to find surface area is more efficient, given Janelle and Dante's methods. Students are given opportunities to evaluate solutions for accuracy. For example, in the *Student Edition*, Lesson 12-5: Do You Understand?, Number 2, students evaluate Benjamin's solution for the expected value of the number of heads when tossing a fair coin 10 times.

5.2d – Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches.

The materials contain embedded supports to guide teachers in helping students develop increasingly efficient approaches. For example, the *Teacher's Edition* includes guidance for teachers to support a "Math Modeling in 3 Acts" for each topic. Act 3 in Topic 10 guides teachers to ask students to analyze and evaluate the efficiency of the method they chose to solve the problem.

The materials provide support for teachers to guide students toward increasing efficiency in their approaches. For example, in Lesson 3-2: Translations, the "Explore & Share" in the *Teacher's* E*dition* guides teachers to ask students for the shortest and most efficient way to write their instructions for translations. Then, when the lesson moves into the concept, coordinate notation for translations is shown to be a concise way to provide instructions for translations. Additional examples include, in the *Teacher*'s *Edition*, Lesson 1-1, Example 2, teachers are encouraged to ask, "Could you have used either the expression $|16-12|$ or the expression $|12-16|$ to find *KL*?" Another example, in the *Teacher's Edition,* Topic 4: "Math Modeling in 3 Acts: Act 3," provides support for the congruent triangles in the Main Question Answer to encourage more efficient approaches, such as asking students to analyze and evaluate the efficiency of the approach they chose to solve the problem. The teacher is then given prompts to introduce and apply the SAS property formally.

The materials provide multiple examples throughout the lesson for students to practice what they are learning and to become more efficient at problem-solving. In Lesson 9-1, there are additional questions labeled, "Extend student thinking" and "Support student understanding" that allow the teacher to help students become more efficient at finding the lengths of diagonals in various shapes, such as trapezoids.

5.3 Balance of Conceptual Understanding and Procedural Fluency

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.3a	All criteria for guidance met.	2/2
5.3b	All criteria for guidance met.	3/3
5.3c	All criteria for guidance met.	6/6
—	**TOTAL**	11/11

5.3a – Materials explicitly state how the conceptual and procedural emphasis of the TEKS are addressed.

The materials include a "Math Background" section for every topic in the *Teacher's Edition*, which explicitly states how the conceptual and procedural emphasis of the TEKS is addressed. For example, the "Math Background" in Topic 12 explicitly states how specific lessons emphasize the conceptual understanding of recognizing non-mutually exclusive events, identifying dependent events, understanding permutations and combinations, defining probability distributions, and using expected value to make decisions. The "Math Background" also explicitly states how specific lessons emphasize the procedural understanding of determining independence and using permutations and combinations.

Each lesson in the materials contains a Lesson Overview in the T*eacher's Edition*, which explicitly states how the conceptual and procedural emphasis of the TEKS is addressed. For example, the Lesson Overview for Lesson 4-1: Congruence, states, "This lesson emphasizes a blend of conceptual understanding and procedural skill and fluency." The overview further explains that students will relate the conversion of measures in rigid motions to congruence and determine that figures are congruent by using rigid motions.

The materials provide a breakdown of the TEKS within each topic in the topic planner section, stating mathematics objectives and essential understandings; see Topic 7 in the *Teacher's Edition.* The materials also include exit tickets that provide specific instructions on the implications for students who choose an incorrect answer to a question, along with additional problems to help address misconceptions. See Exit Ticket 7-1.

The materials explicitly state how the conceptual and procedural emphasis of the TEKS is addressed. For example, Topic 8: "Math Background," explicitly states how content is connected in lessons. For instance, the TEKS G.9A is addressed in the following bullet point in the materials: "Trigonometric Ratios in Non-Right Triangles. In Lessons 8-3 through 8-5, students extend their understanding of trigonometric ratios to non-right triangles. Students derive the Law of Sines and Law of Cosines and apply them in a variety of contexts." Additional examples include the *Teacher's Edition*, Lesson 9-3: Math Talk, where it explicitly states the TEKS G.12A and G.12E in key concepts such as "graph a circle from its equation." The lesson "emphasizes a blend of conceptual understanding and procedural skill" such as students understanding

why the equation of a circle includes all possible points on the circle and students developing fluency from determining if given points lie on circles.

5.3b – Questions and tasks include the use of concrete models and manipulatives, pictorial representations (figures/drawings), and abstract representations, as required by the TEKS.

The materials contain questions and tasks that utilize concrete models, pictorial representations, and abstract representations as required by the TEKS. For example, Lesson 5-4: Inequalities in One Triangle, begins by having students use straws of different lengths to construct triangles, and then moves on to using pictorial representations of triangles to discuss angle and side relationships before introducing abstract symbolic notation for inequalities and angle measures. An additional example in Lesson 2-3 of the S*tudent Edition* instructs students to use pencil and paper or scissors and paper to construct triangles and place their vertices adjacent to one another to understand the sum of the angles. Students then progress by using pictorial representations of triangles to write abstract representations of the sum of angles.

The materials include tasks that allow students to explore mathematical concepts using concrete models and pictorial representations. In Lesson 5-1: "Explore & Share," during the lesson portion, students are given a map and asked to draw five points on the map and determine which one is closest to the middle school. The students are then asked how they can find all points that are equidistant from the middle school.

The materials include tasks that encourage students to explain how a pictorial model relates to an abstract concept. For example, in Lesson 5-1, Example 3, students are asked why a compass needs to be opened to more than half the length of the segment before drawing the arcs to construct the perpendicular bisector.

The materials contain questions and tasks that utilize concrete models, pictorial representations, and abstract representations as required by the TEKS. For example, "Teacher Resources" includes Topic 3: "Hands on Game: Attribute Sleuth," which uses physical cards with one student—the Witness—secretly choosing a card, and the other three students—the Sleuths—asking yes/no questions about attributes or math concepts on the cards. Another example is the *Student's Edition*, Lesson 6-3, Example 2, which provides an image of a parallelogram along with expressions for its side lengths. Using the properties of parallelograms, students determine the value of x and use it to determine the length of each side of the given parallelogram.

5.3c – Materials include supports for students in connecting, creating, defining, and explaining concrete and representational models to abstract (symbolic/numeric/algorithmic) concepts, as required by the TEKS.

Materials include supports for students to connect, create, define, and explain concrete and representational models to abstract concepts, as required by the TEKS. For example, in Lesson 4-2: Isosceles and Equilateral Triangles, of the S*tudent Edition*, students create an isosceles triangle with scissors and paper, then trace it to create a pictorial representation. Students are asked to connect the concrete model and pictorial representations by noting how many ways they can flip, slide, or turn the concrete triangle to fit inside the pictorial representation. Students then must explain how these answers would change if the model and picture were changed to an equilateral triangle. Another example, the "Understand" section of Lesson 3-4 in the *Student Edition*, asks students to explain the rigid motions necessary for one shape to transform into another. In the process, students must define the motions using abstract notations, create an intermediate pictorial representation, and connect each motion to its corresponding abstract notation.

The materials include supports for students on how to draw a perpendicular bisector using specific tools and how a pictorial model relates to an abstract concept, as in Lesson 7-1, Example 3, in the *Student Edition*, students are given steps along with pictorial representations to construct the perpendicular bisector.

The materials provide an opportunity for students to explain the differences and similarities between the construction of a perpendicular bisector, a perpendicular line through a point not on the line, and a perpendicular line through a point on the line. See Lesson 5-1, Example 4, explaining math ideas.

Materials include supports for students to connect, create, define, and explain concrete and representational models to abstract concepts, as required by the TEKS. For example, the *Student Edition*, Lesson 7-1, Example 2, provides students with opportunities to connect and explain how to find side lengths given rectangles in a graph and use them to find the ratios of the corresponding side lengths. Another example, the *Student' Edition*, Lesson 8-5, Example 2, provides students with opportunities to sketch a right triangle in a standard position and use the provided angle and leg length to find the other leg length.

5.4 Development of Academic Mathematical Language

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.4a	All criteria for guidance met.	3/3
5.4b	All criteria for guidance met.	1/1
5.4c	All criteria for guidance met.	6/6
—	**TOTAL**	10/10

5.4a – Materials provide opportunities for students to develop academic mathematical language using visuals, manipulatives, and other language development strategies.

The materials include "Targeted ELPS Support" in each lesson of the *Teacher's Edition* to support teachers in providing opportunities for students to develop academic mathematical language using visuals, manipulatives, and other language strategies. Some examples include: "Targeted ELPS Support" in Lesson 2-2 instructs teachers to draw visuals of parallel and non-parallel lines, point to these visuals while explaining, and include small-group discussions to help students learn about the word *angle*. The "Language Routine" portions of Lesson 8-1 allows students to work in pairs to explain a mathematical process or concept and evaluate each other's explanations.

Other examples include the "Targeted ELPS Support" in Lesson 3-2, which includes instructions for both the student and teacher to point while reading aloud, for students to cut out a triangle and use it to model translations and describe while modeling, and for students to pick figures from a set of figures to match certain translations.

In the *Teacher's Edition*, Lesson 4-1, Example 5, paper cutouts of puzzle pieces are provided for students to refer to as they describe congruence after performing different transformations, such as translations and rotations. Example 5 also provides a visual of the boat with the puzzle joints enlarged for detail.

he *Teacher's Edition*, Lesson 6-1, Example 5, "Targeted ELPS Support," Pre-Production includes guidance for the teacher to point to the words *interior* and *exterior* on Example 5, then ask students to give a thumbs up when they hear the word *interior* and give a thumbs down when they hear the word *exterior*.

The materials provide opportunities for students to develop a mathematical language using diagrams, such as the second example in Lesson 8-1, where students are asked to examine a picture of a ramp and identify the sloped part of the ramp.

5.4b – Materials include embedded teacher guidance to scaffold and support students' development and use of academic mathematical vocabulary in context.

The materials include "Language Routine" in each lesson of the *Teacher's Edition* to guide teachers in scaffolding and supporting students' use of academic vocabulary. The "Language Routine" in Lessons 1-5 asks teachers to discuss biconditional and point out the usual use of the phrase "if and only if" in these

statements. The materials then ask students to create their biconditional statement and determine whether it is true or not before sharing with the class.

The materials provide "Linguistic Accommodations" at the beginning of each topic in the *Teacher's E**dition*, which guides the support of students' development of academic vocabulary in context. Topic 12: "Probability," includes a "Vocabulary in Context" chart in the "Linguistic Accommodations" that provides both academic meanings and additional meanings of the vocabulary words *event*, *uniform*, and *trial*, allowing teachers to discuss and support student understanding of the academic context.

The materials include embedded teacher guidance to scaffold and support students' development and use of academic mathematical vocabulary in context. For example, the *Teacher's Edition*, Lesson 11-1: "Math Talk," presents four triangles. Teachers are provided with embedded guidance to encourage students to explain which triangle does not belong, using terms such as *acute*, *obtuse*, or *right*, and to describe the relationship between side lengths. Another example, in Lesson 12-1: "Explore & Share," teachers are provided with guidance to facilitate meaningful mathematical discourse. Teachers are prompted to ask students, "How is spinning the spinner two times different from selecting a card and then selecting another card?"

5.4c – Materials include embedded teacher guidance to support the application of appropriate mathematical language to include vocabulary, syntax, and discourse to include guidance to support mathematical conversations that provide opportunities for students to hear, refine, and use math language with peers and develop their math language toolkit over time as well as guide teachers to support student responses using exemplar responses to questions and tasks.

The materials include teacher guidance to support appropriate mathematical vocabulary, syntax, and discourse. The teacher guidance also supports mathematical conversations by hearing, refining, and using mathematical language with peers and supports student responses with exemplar responses to questions and tasks. In Lesson 10-5 of the *Teacher's Edition*, guidance is provided for the "Explore & Share" activity to support students in recognizing angles that intercept the same arc. Students are provided a figure, and the teacher facilitates whole-class discussion with questions about "what shape" the figure is and "what does it mean" that the points are evenly spaced. The teacher then promotes small group discussions and uses prompts of "what lines and segments can be used to form angles," "how can you use the fact that the points are evenly spaced," and "describe the sets of congruent angles." Exemplar responses are provided, and teachers are guided to facilitate meaningful math discourse after the activity by using a whole-group discussion to explain what helps students identify angles and justify their conclusions. Other examples include the *Teacher's Edition*, Lesson 4-3, Example 3, which provides teachers with guidance on strategies to develop mathematical language. For instance, teachers are guided to ask questions such as, "How would the proof be different if the triangles in the diagram did not have the same orientation?" with an exemplar student response. In the "Targeted ELPS Support" section at the bottom of the page, teachers are provided with guidance on how to help students practice

listening to one another, as seen in the High Intermediate paragraph. In this paragraph, teachers are given guidance to have students read the proof in Example 3 and then discuss with a partner the meanings of the words "translate" and "rotate." The *Teacher's Edition,* Lesson 6-2, Example 3, provides teachers with guidance to help students apply appropriate mathematical language in a variety of ways. For instance, teachers are given guidance at the top of the page to "pose purposeful questions" such as, "From this example, what conjecture can you make about the base angles of an isosceles trapezoid?" Additionally, teachers are given guidance at the bottom of the page with "Targeted ELPS Support" to have Advanced students work with a partner to discuss the word *isosceles*.

The materials include "Language Routine" guidance in each lesson of the T*eacher's Edition* to support students in applying appropriate mathematical vocabulary, syntax, and discourse, and to provide students with opportunities to hear, refine, and use mathematical language with their peers. The " Language Routine" in Lesson 5-1 is titled, "Stronger and Clearer Each Time." This routine guides teachers to prompt students to write an explanation independently, using appropriate vocabulary and syntax, before working together with a partner to revise their explanations. Prompts such as, "What key information do you know?" and "What strategies might you use?" are provided to encourage the use of precise mathematical language.

The materials include a section in the lesson, during the "Explore & Share" portion, where teachers are provided with prompts to promote mathematical discourse in small groups. In Lesson 8-1, students are presented with a question after learning about right triangles and developing a conjecture: "What properties must a triangle have to satisfy your conjecture?"

The materials provide students with the opportunity to use, refine, and develop mathematical discourse with teacher guidance in the "Find a Rule" problem in Lesson 8-2, where students must use mathematical language to describe a situation.

5.5 Process Standards Connection

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.5a	All criteria for guidance met.	1/1
5.5b	All criteria for guidance met.	2/2
5.5c	All criteria for guidance met.	2/2
5.5d	All criteria for guidance met.	1/1
—	**TOTAL**	6/6

5.5a – TEKS process standards are integrated appropriately into the materials.

The materials include a "Mathematical Process Standards" section at the beginning of each topic in the *Teacher's Edition*, guiding educators in the appropriate integration of the process standards within the topic. For example, in Topic 1: "Foundations of Geometry," the *Teacher's Edition* highlights process standards G.1A and G.1E to develop expertise, important behaviors, and thinking habits throughout the unit. A table is provided that outlines ways students demonstrate proficiency with each of these process standards, and question prompts are provided for use with students who do not understand how to apply mathematics or represent and solve problems.

The materials appropriately integrate process standards into each lesson of the *Student Edition*. In Lesson 9-1 of the *Student Edition*, a callout on the page explicitly states the mathematical process standards to be demonstrated in the lesson. Further callouts with red titles point students to develop those process standards at the appropriate point in the lesson. The callout for Example 2 on classifying a triangle is titled "Learn Together" and asks if students seek help when needed or provide help and support to others. Another callout, for Example 3 on classifying a parallelogram, titled "Communicate Reasoning," asks students to consider other formulas they might use on the coordinate plane and determine some ways to show that a quadrilateral is not a rectangle or a rhombus. Another example is that in each lesson, a listing of the applicable standards is provided in the lesson overview and throughout the process standards connections. In Lesson 8-2, there is a problem where students are asked to write a proportion that uses the hypotenuse of two similar triangles.

The materials appropriately integrate the TEKS process standards into the lessons. For example, in the *Teacher's Edition*, Lesson 11-5, the identified TEKS process standard from the beginning of the lesson states, "G.1A apply mathematics to problems arising in everyday life, society, and the workplace;" Example 2, part A asks if a given storage rack is large enough to store 20 ft^3 of firewood; Example 2, part B asks to decide between two canisters using the volume they can hold. Another example, in the *Teacher's Edition*, Lesson 12-3, the identified TEKS process standard from the beginning of the lesson states, "G.1E Create and use representations to organize, record, and communicate mathematical ideas." Example 1 asks you to create a tree diagram to determine the number of different one-topping pizzas available at Manuel's Pizzeria.

5.5b – Materials include a description of how TEKS process standards are incorporated and connected throughout the course.

The materials include a "Mathematical Process Standards" page in the *Teacher's Edition*, which describes how the TEKS process standards are incorporated and connected throughout the course. One column lists descriptions of "Mathematical Process Standards in Instruction" and explains how these connections are made throughout the course. In contrast, another column lists "Mathematical Process Standards in Practice & Problem Solving" and illustrates how these process standards are incorporated into all exercises and assessments.

The materials include "Pacing Guides," which show that the TEKS process standards are incorporated and connected throughout the course. There is also a unit overview at the beginning of each unit, and the Scope and Sequence provide a complete guide to how each of the TEKS, including the process standards, is used throughout the program. Some other examples include the *Teacher's Edition* and the "Mathematical Process Standards," which provide teachers with guidance on where the process standards are located at the beginning of each topic and how they relate to each lesson. Another example, the *Student Edition* Table of Contents has a dropdown listing where different standards are located throughout the material such as process standard 1.C.ii is found in Lesson 4-2, "Explore & Share;" Lesson 5-4, "Explore & Share;" Lesson 11-5, Example 1; Lesson 5-5: "Practice & Problem Solving," Item 14; Lesson 11-3, Example 5: "Try It!"; and Lesson 11-3: "Practice & Problem Solving," Items 23–26.

5.5c – Materials include a description for each unit of how TEKS process standards are incorporated and connected throughout the unit.

The materials include a "Mathematical Process Standards" section at the beginning of each Topic in the *Teacher's Edition*, which describes how the TEKS process standards are incorporated and connected throughout the topic. For example, in Topic 2 of the *Teacher's Edition*, the "Mathematical Process Standards" state that mathematical processes describe the "behaviors and habits of mind" that proficient students demonstrate. The materials further explicitly state that opportunities to develop expertise with these behaviors and habits "exist throughout the topic and program" before providing specific explanations and examples for Topic 2.

The materials include a "Table of Contents" in the *Teacher's Edition*, which outlines lessons for each topic and lists the incorporated TEKS process standards, allowing teachers to see how these standards are integrated and connected throughout the unit. For example, Topic 2 shows that G.1B will be incorporated in both lessons 1 and 2 and is connected to both identifying and describing parallel lines, as well as proving lines are parallel. The materials also provide both lesson overviews and unit overviews at the beginning of each unit. In Unit 8, the process standards are provided and broken down, along with prompts for teachers to use in eliciting student understanding.

The materials include a description for each unit of how the TEKS process standards are incorporated and connected throughout the unit. For example, Topic 5: "Mathematical Process Standards" focuses on the TEKS process standards G.1B and G.1D. Objectives to demonstrate proficiency for these standards include statements such as, "Use geometric figures to represent real-world situations and then interpret their solutions in terms of the context of the situation." Another example, Topic 9: "Mathematical Process Standards" focuses on the TEKS process standards G.1F and G.1G. Objectives to demonstrate proficiency for these standards include statements such as, "Plan a strategy to determine whether a point is on a circle."

5.5d – Materials include an overview of the TEKS process standards incorporated into each lesson.

The materials include an "Item Analysis" in the *Teacher's Edition* for each lesson that shows a table indicating which examples for the lesson are connected to each process standard.

The materials include a "Lesson Overview" in the *Teacher's Edition* for each lesson, which states the TEKS process standards incorporated into that lesson. For example, the lesson overview for Lesson 8-5: "Problem Solving with Trigonometry," states that the lesson will incorporate process standards G.1D and G.1F and gives a description of what students will demonstrate. Other examples include the *Teacher's Edition*, Lesson 10-2, which identifies the "Mathematical Process Standard" G.1C at the beginning of the lesson. In the *Teacher's Edition*, Lesson 1-4 identifies the "Mathematical Process Standards" G.1B and G.1F at the start of the lesson.

The materials properly integrate the process standards in each lesson by not only listing the applicable standards in the "Lesson Overview" but also in the process standards connections provided throughout each lesson. In Lesson 8-2, there is a problem where students are asked to write a proportion that uses the hypotenuse of two similar triangles.

6. Productive Struggle

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

6.1 Student Self-Efficacy

GUIDANCE	SCORE SUMMARY	RAW SCORE
6.1a	All criteria for guidance met.	3/3
6.1b	All criteria for guidance met.	6/6
6.1c	All criteria for guidance met.	3/3
—	**TOTAL**	12/12

6.1a – Materials provide opportunities for students to think mathematically, persevere through solving problems, and to make sense of mathematics.

The materials provide an "Explore & Share" activity at the beginning of each lesson, which offers teacher guidance and prompts, allowing students to develop mathematical reasoning and problem-solving skills while persevering through productive struggle. For example, Lesson 6-4 in the *Teacher's Edition* includes guidance for teachers to reinforce how to use both digital and analog tools, to ask students how they would ensure a figure has the correct number of parallel sides, and to consider why angles drawn by hand may not be exact.

The materials provide opportunities for students to think mathematically, make sense of mathematics, and persevere through problems in each lesson. Some examples include: Lesson 10-1: Arcs and Sectors, in the S*tudent Edition* helps students understand the concept of arc measure by building the conceptual understanding that arc length is related to circumference. Students are guided through the thought process of finding an arc length by finding angle measure in degrees and then in radians, while a callout encourages perseverance by stating "trust your ability to build on your skillset." The *Teacher's Edition*, Lesson 2-4: "Model & Discuss," provides students with opportunities to determine the height in feet after taking 10 steps for two different people climbing stairs at different ground levels. During the Model & Discuss, teachers are given guidance to support productive struggle in learning mathematics, such as asking the question, "What would you need to know to determine who will reach the top first?" The *Teacher's Edition*, Lesson 10-3, "Explore & Share," gives students opportunities to determine if figures in a diagram are congruent. Teachers are given guidance to ask questions that lead students to reason that components are congruent and theorems to use to prove it.

The lesson materials and/or lesson plans identify common, high-leverage errors or misconceptions that students may have, and offer pre-planned teacher moves as a solution pathway. In Lesson 6-1 in the "Math Talks" section, students are presented with several triangles and asked to determine which triangle does not belong. They are encouraged to discuss using the Triangle Identity theorem and discuss with their peers.

The materials provide scaffolds to support students as they persevere through solving problems. For example, tasks gradually increase in difficulty, allowing students to build confidence before tackling more complex problems. In Lesson 11-1, the materials provide guiding questions when students encounter difficulties, including, "How can you ensure that your figures have the correct number of parallel sides?" and "How can you use the height of a trapezoid or triangle to calculate its area?" Such questions encourage students to think critically about their next steps.

6.1b – Materials support students in understanding, explaining, and justifying that there can be multiple ways to represent and solve problems and complete tasks.

Each lesson in the materials begins with a math talk that supports students in understanding, explaining, and justifying that there are multiple ways to represent problems. For example, the "Math Talk" at the beginning of Lesson 6-3 asks students to explain what must be true about lines in a diagram to make $x = 24$. Guidance is included for teachers to identify students who have different representations of rules, and to have them justify and explain the thinking behind these representations.

Each lesson in the materials includes an "Explore & Share" activity, which leverages whole-group and small-group discussions to support students in understanding, explaining, and justifying solutions to problems. For example, the "Explore & Share" for Lesson 6-5 in the *Teacher's Edition* provides prompts for finding different ways to determine that a figure is a parallelogram. Students are encouraged to justify their approach and explain what they would look for to justify classifying a figure.

The materials embed guiding prompts to support students in understanding, explaining, and justifying different approaches to solving problems, including "How can you use the formula for the area of a trapezoid to find the area of the hexagon?" and "Why does this formula work?" found in the *Student Edition,* Lesson 11-1, "Explore & Share." Another example: "Why does the method for calculating the area of a hexagon using a trapezoid vs a triangle give the same total area?" See Lesson 11-1 in the T*eacher's Edition* question for early finishers.

The materials support students in explaining that there can be multiple ways to represent problems. For example, the *Teacher's Edition*, Lesson 5-3, Example 3, "Try It!" provides teachers with guidance on asking students, "What is another way you could verify that the location of the centroid is correct?" Another example, in the *Teacher's Edition*, Lesson 11-2 "Explore & Share," gives students opportunities to find the area of a composite figure using multiple methods. The teacher is given guidance to ask questions such as, "Why might decomposing a figure into smaller shapes be useful?"

6.1c – Materials are designed to require students to make sense of mathematics through multiple opportunities for students to do, write about, and discuss math with peers and teachers.

The materials include a "Facilitate Meaningful Mathematical Discourse" section in the lesson, which provides guidance and prompts to help teachers lead students in doing and discussing math with peers

and teachers. For example, in Lesson 2-5 of the *Teacher's* E*dition*, Example One includes the "Facilitate Meaningful Mathematical Discourse" with prompts for asking how we can compare Euclidean and spherical geometry. Another prompt asks if great circles can have parallel relationships with other great circles. Exemplar responses are also provided to ensure that teachers can guide their students to understand and discuss the material correctly.

The materials provide opportunities for students to verbally express their mathematical thinking through discussion prompts, teacher-facilitated questioning, structured math talk routines, turn-and-talk activities, whole-class discussions, or strategy-sharing routines. At the beginning of Unit 11, there is a "Math Walk Activity" where students engage with a video and write answers to teacher-posed questions such as, "What did you notice?," "What question are they trying to answer?," and "What math do you know that can help you answer the question?" Students then turn and discuss their answers with a partner, followed by a whole-class discussion. Each lesson in the materials begins with a "Math Talk" or "Data Talk" in which students are required to do, write about, and discuss math with peers and teachers. For example, the Data Talk found in Lesson 3-3 of the *Teacher's Edition* asks students to write a rule that describes the relationship between the data points in two tables. Students are then prompted to plot the points from both tables and discuss what mathematical transformations would describe one image as the preimage of the other.

The materials are designed to require students to make sense of mathematics through students doing and writing about math with peers and teachers. For example, in the *Student Edition,* Lesson 1-7, Example 3, students write a paragraph proof of the Congruent Supplements Theorem and the Congruent Complements Theorem.

The materials are designed to require students to make sense of mathematics through hands-on activities and discussions with peers and teachers. For example, in the *Student Edition,* Lesson 10-1, Concept Summary, Talk About Math Ideas, students are given opportunities to make sense of when to use degrees and radians when given the prompt, "Discuss the advantages and disadvantages of measuring angles in degrees or radians, depending on the context of the problem."

6.2 Facilitating Productive Struggle

GUIDANCE	SCORE SUMMARY	RAW SCORE
6.2a	All criteria for guidance met.	6/6
6.2b	All criteria for guidance met.	4/4
—	**TOTAL**	10/10

6.2a – Materials support teachers in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, and justifications.

The materials include a "Problem Solving Model" that outlines a step-by-step framework for solving problems, allowing students to reflect on and share their explanations, arguments, and justifications. This model includes prompts like, "Do my calculations make sense?," "Did I justify my solution using correct math terminology?," and "How could I improve my plan?" to help students reflect. The model then provides space for students to share their approach with section titles like, "Formulate a Plan," "Justify the Solution," and "Evaluate the Process."

Each topic in the materials contains a "Math Modeling in 3 Acts" activity, which guides students to share and reflect on their problem-solving. For example, the "Math Modeling in 3 Acts" activity for Topic 10 in the *Student Edition* asks students to write a main question, make a conjecture about the question, explain the conjecture, and justify the conjecture with math from the current topic. A callout prompts students to compare ideas with classmates and reflect to refine conjectures and arguments.

The materials include open-ended problems that allow students to use different strategies to find a solution. After solving, students explain their reasoning through peer discussions and written reflections. In Lesson 11-8 in the introduction, the "Language Routines" engage students in interacting with a flawed mathematical explanation, then prompts them with questions like, "What do you notice about this reasoning?," and "Does it seem correct? Why or why not?" Students can also discuss their thoughts with peers.

The materials support teachers in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, and justifications. For example, the *Teacher's Edition*, Lesson 8-4 ,Examples 1 and 2, gives teachers support for guiding students to justify arguments by asking questions such as, "Once you use the cosine to find the length of the third side, is it possible to find the measures of the other two angles? Explain." Another example, in the *Teacher's Edition*, Lesson 3-4: "Explore & Share," supports teachers before the "Explore & Share" by giving questions to ask, such as, "Think about getting dressed in the morning. Does the order in which you get dressed matter? Why or why not?"

6.2b – Materials include prompts and guidance to support teachers in providing explanatory feedback based on student responses and anticipated misconceptions.

Each lesson in the T*eacher's Edition* of the materials includes a "Common Error" feature that supports teachers in providing feedback based on student responses and anticipated misconceptions. For example, the "Common Error" feature in Lesson 10-1, Example 3, notes that a certain incorrect answer indicates that students were finding the measure of a major arc instead of the minor arc. Teachers are given guidance to remind students of the naming conventions that distinguish minor and major arcs.

Each lesson in the T*eacher's Edition* of the materials includes a "Support Student Understanding" feature that provides prompts for teachers to utilize based on anticipated misconceptions. For example, the "Support Student Understanding" feature in Lesson 5-1 suggests that students may struggle with the algebraic expression in Example 8. Teachers are guided to draw the figure again, replacing the algebraic expression with a constant and then asking prompts, "What is the value of *KL*?," and "If the length of KL is expressed as *2x-3*, what is the value of *x*?"

The materials include exit tickets that provide teacher support for identifying common misconceptions based on the answer choice chosen by the student. There are also prompts to help guide the students' thinking back to the correct solution. See Exit Ticket 11-8 where students are asked to solve a scale problem; there is guidance provided as to what the misconception may be if they chose *B* instead of *D*. There are also prompts such as "emphasize that area is affected by the square of the scale factor not just the scale factor" and "encourage students to write the area formula and follow steps carefully."

The materials include guidance to support teachers in providing explanatory feedback based on student responses and anticipated misconceptions. For example, the *Teacher's Edition*, Lesson 4-3, Exit Ticket, suggests that, "If students chose answer choice A, then they may not have a clear understanding of identifying the hypotenuse of right triangles." The materials give teachers guidance to address common errors and misconceptions, such as, "Remind students that labeling the parts of a right triangle is essential when comparing one to another. Use 'Do You KNOW HOW?' Item 7 or 8, if needed." Another example, in the *Teacher's Edition,* Lesson 10-4, Example 2, "Try It!" gives teachers prompts such as, "Have them draw the circle and the inscribed angle and mark the given arc measure," to use when students respond with common errors such as, "If students answer 98° for Part A."