Savvas Learning Company LLC

English Mathematics, 8

ENVISION+ TEXAS MATHEMATICS 2027 (PRINT + DIGITAL), GRADE 8

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Full-Subject, Tier-1	**9798213463347**	**Both Print and Digital**	**Static**

Rating Overview

TEKS SCORE	ELPS SCORE	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	100%	7	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	7
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 Grade 8 Teacher's Edition includes a scope and sequence outlining the Texas Essential Knowledge and Skills (TEKS), English Language Proficiency Standards (ELPS), and mathematical concepts taught in the course, along with vertical alignment for secondary mathematics courses. Relevant TEKS, ELPS, and concepts are also presented at the start of each unit and each lesson.

ELPS are found in the "Scope and Sequence," "Pacing Guide," "Unit Overview," and lessons. The "End Matter" of the *Teacher's Edition* has an "ELPS Correlation List" with ELPS cross-referenced to each unit for teacher reference.

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 "End Matter" section of the *Grade 8 Teacher's Edition* includes a suggested pacing guide for 165, 180, and 210 days to support effective implementation for various instructional calendars. Each topic/unit specifies the number of instructional days, assessment days, and days for differentiation.

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

Materials include an explanation for the rationale of unit order in the "Math Background: Coherence" section of the *Grade 8 Teacher's Edition*, explaining connections within each topic from previous content taught and future lessons. For example, in the Topic 3: "Math Background: Coherence," the following

prompts are asked and answered: "How does Topic 3 connect to what students learned earlier?" "How is content connected within Topic 3?" and "How does Topic 3 connect to what students will learn later?"

The "Program Overview Grades 6–8" includes an explanation for the rationale of the sequencing of all topics, connecting key concepts and the connections made to other concepts in the course. The overview includes a graphic outlining the progression of content in each topic.

The "Grade 8 Content Organization Rationale" provides a detailed description of the key concepts and connections to further explain the sequencing of the course.

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

Materials include protocols with corresponding guidance for unit and lesson internalization. The "Grade 8 Instructional Leader Topic Internalization Protocol" in the *Lesson Implementation Guide* provides guidance for instructional leaders under each subtopic of the protocol. The guidance section includes rationale, implementation, and extensions for instructional leaders to utilize when guiding teachers through the internalization process.

Materials in the *Grade 8 Teacher's Edition*, Lesson 9-1: "Determine the Cost of A Loan," include protocols with corresponding guidance for unit and lesson internalization, with a breakdown of lessons including objectives, essential understanding, sequencing, and instructional strategies.

Materials in the *Grade 8 Teacher's Edition*, Topic 9: "Planner and Math Background," include protocols with guidance for lesson internalization through lesson presentation sequence recommendations, engagement strategies, questions to ask, and examples of possible student work errors.

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

Materials include resources and guidance for instructional leaders to support teachers in implementing instructional materials. The "Grade 8 Instructional Leader Topic Internalization Protocol" in the *Lesson Implementation Guide* provides administrators with guidance segments to assist teachers with implementation under each sub-topic of the protocol, including rationale, implementation, and extensions to utilize when guiding teachers through the internalization process.

A "Classroom Observation and Analysis Tool" includes guidance for instructional leaders to support teachers with targeted feedback on indicators during observed instruction. Instructional leaders record "Yes," "Partially," or "No" to various tasks or look-fors in the lesson. A "Post-Visit Action Plan" allows instructional leaders to collaborate with teachers to better implement the curriculum after observation.

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.

Materials include comprehensive unit overviews that provide the background content knowledge necessary to effectively teach the unit concepts as seen in the Topic 5: "Math Background: Coherence" section of the *Grade 8 Teacher's Edition*. The "Look Back" part of that section describes previous content learned by the student and connects the lessons of the unit/topic to grade 6 and grade 7 concepts taught in previous lessons.

Materials include the academic vocabulary necessary to effectively teach the concepts in the unit. In the *Grade 8 Teacher's Edition*, teachers are provided linguistic accommodations, with vocabulary for the unit provided in detail, including "Topic Vocabulary Support" broken down into "Topic Vocabulary," "Prior Terms," "Upcoming Terms," "Vocabulary in Context," and "Context Setting Vocabulary," describing the vocabulary necessary for the unit/topic.

At the beginning of each unit in the *Grade 8 Teacher's Edition*, a "Topic Planner" includes a comprehensive unit overview with background content knowledge and academic vocabulary necessary to effectively teach the concepts in the unit.

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 contain supports for families in both Spanish and English in the *Family/Caregiver Guide*. The digital resource includes Spanish and English options for each unit with additional supports to use at home in areas such as "Online Practice and Problem Solving," "Responsive Feedback," and "Question Help."

The *Family/Caregiver Guide* provides resources for each unit through home connections, questions to ask, and how to help students with their homework. For example, Topic 7: "Understand and Apply the Pythagorean Theorem" provides families with "Connect the Math" to describe the content of a real-world context, such as triangles used for bridges and cranes.

The materials include a "Spanish and English Glossary" for families to access outside of school. Each unit has a "Linguistic Accommodations" section citing ELPS and transferable/non-transferable skills for Spanish.

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).

In the *Grade 8 Teacher's Edition*, the "Key Concepts" section of each lesson includes "Mathematical Objectives" and "Language Objectives," but they are not broken down by day.

Lesson plans include questions at differentiated levels in the section titled "Assessing and Advancing" and questions for whole-group instruction in "Discuss Student Solutions."

Student materials are listed for each lesson on the first page, and teacher resources consistently refer to "enVision on the go." Assessments are provided for each lesson as digital "Quick Checks," with the results suggesting appropriate remediation, practice, or enrichment based on student performance. "Exit Tickets" provide another assessment option. No unit assessments were found.

Materials include comprehensive, structured, detailed lesson plans as illustrated in Lesson Plan 2–2: "Solve Equations with Variables on Both Sides," which includes mathematics and language objectives aligned with the concept of solving equations in TEKS 8.8A and 8.8C. The ELPS listed is Speaking 2D, but it is not defined within the lesson plan. The plan includes a list of materials necessary to successfully implement the activity. Within the lesson, a "Language Routine" activity allows students to "Compare and Connect" what they observe on the balance scale, resulting in an opportunity to use content language. Throughout the lesson plan, multiple questions are listed to check for students' understanding. Student tasks include "Investigate," "Sample Student Work," "Choose a Problem," and "Practice and Problem-Solving," and are evidence of tasks promoting mastery of the content. Step 4 of Lesson Plan 2–2 is titled "Assess and Differentiate," where there are various references to assessments that may be utilized for student data.

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 *Grade 8 Teacher's Edition*, the Topic 4 "Topic Planner" includes a list of needed materials for the lesson for teachers and students.

The heading bar provides suggested timing for each step in the lesson within a topic, as seen in Lesson 4-1, Step 3 "Practice and Problem Solving" is recommended to take 15–20 minutes.

The *Grade 8 Teacher's Edition* includes materials with a lesson overview listing the teacher and student materials and suggested timing. In the "Lesson Implementation Guide," Lesson Plan 2–2, the lesson overview consists of materials that students and teachers will need to be successful. The lesson is broken into four steps, each with a timeframe for implementation. Step 1 "Investigate" is 30–35 minutes, Step 2 "Connect" is 25–30 minutes, Step 3 "Practice and Problem Solving" is 15–20 minutes, and Step 4 "Assess and Differentiate" is 15–30 minutes.

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

In the *Grade 8 Teacher's Edition*, Topic 1: "Fluency Practice," materials include guidance for extended practice with prompts for the teacher on getting started, prompting during the task, and extra challenges for students that need it.

Materials include guidance on the effective use of lesson materials for extended practice. In Lesson 3-3: Step 4 "Assess and Differentiate," the "Differentiation Library" provides guidance for extension practice based on Quick Check.

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.

Materials include a variety of instructional assessments at the unit and lesson levels (including diagnostic, formative, and summative) that vary in types of tasks and questions. For example, the *Grade 8 Assessment Sourcebook* provides details for the types of assessments to utilize at various points of the topics and lessons as seen in Lesson 1-1, "Topic Readiness Assessment" that is used as a diagnostic assessment, "Exit Ticket 1-1" used as a formative assessment and includes a self-assessment, and "Quick Check 1-1," a summative assessment designed to be administered at the end of the lesson. The assessments consist of question types that include multiple choice, text entry, multi-select, and a match table.

The "Progress Monitoring Assessment Form A" in the *Assessment Guide* includes an assessment that varies in types of tasks and questions, such as question 20, Part A, where students identify the equation of a y = mx + b line, which is being used as the line of best fit. Then, on Part B, students must select all that is true about the scatterplot correlation.

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

Materials include the definition and intended purpose for the types of instructional assessments included. A table in the *Grade 8 Assessment Sourcebook* describes the three types of assessment (diagnostic, formative, and summative) with reasons for administration and the best time to administer each type. The table states that the "Diagnostic Assessment" is used to diagnose a student's readiness for learning by assessing prerequisite content before instruction.

The "Formative Assessment" section of the table in the *Grade 8 Assessment Sourcebook* states that the assessment should be given during a lesson. The section also provides various types of formative assessments within the lesson under the areas of "Try It" and "Exit Ticket." The "Exit Ticket" is intended to "assess students' understanding of critical lesson concepts and skills."

The "Front Matter" has an "Assessment Resources" page, which includes the definition and intended purpose of instructional assessments, categorizing and identifying which types would be considered diagnostic, formative, or summative, and when to administer them.

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

Materials include teacher guidance to ensure accurate administration of instructional assessments. The *Grade 8 Assessment Sourcebook* outlines the purpose of each assessment type and provides directions on how to monitor and administer assessments, along with the recommended time within the unit or lesson to administer the various assessments. These guidelines help support accuracy in test delivery across classrooms. An "Assessment Guide" in the *Grade 8 Assessment Sourcebook* is included to assist teachers. It is divided into three sections: "Why and When to Assess," "What to Assess," and "How to Assess," providing structured guidance for accurate assessment practices. Materials include clear, specific, and actionable guidance for the consistent administration of instructional assessments. For example, the *Assessment Guide: How to Administer Assessments* includes the sections "Preparing for Assessments" and "Monitoring Assessments" that provide guidance for timing, preparing the testing environment, test directions, and active monitoring.

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

Materials include diagnostic assessments aligned to the TEKS and objectives of the course. For example, in the *Grade 8 Assessment Sourcebook*, the "Readiness Test" is utilized as a diagnostic assessment aligned to set the foundation for the grade 8 TEKS, with questions from the sixth and seventh grade TEKS to see where the student is academically before beginning instruction.

Formative assessments are aligned to the TEKS and objectives of the unit and lesson. In the *Grade 8 Teacher's Edition*, Lesson 4-1 addresses TEKS 8.5G, and the Quick Check 4-1 includes five questions that align directly with this standard.

Summative assessments are aligned to the TEKS and objectives. For example, the Topics 1–4 Cumulative/Benchmark Assessment includes multiple questions related to grade 8 TEKS 8.4B, and the TEKS 8.4B are assessed again in the Topics 1–6 Cumulative/Benchmark Assessment, and Topics 1–9 Cumulative/Benchmark Assessment.

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

Instructional assessments include TEKS-aligned items at varying levels of complexity. For example, in the *Grade 8 Assessment Sourcebook*, the Quick Check for Lesson 4-3 is aligned with TEKS 8.5F/8.5H and has varying levels of complexity that include text entry (inline choice), match table, and multi-select.

Lesson 5-4 of the *Grade 8 Teacher's Edition* includes two "STAAR Assessment Practice" questions. Question one is aligned with 8.11A and is a graphing/hot spot question, while question two is aligned with 8.5C and is a constructed-response question.

Instructional assessments include TEKS-aligned items at varying levels of complexity according to the Depth of Knowledge (DOK) concept listed within "Item Analysis Charts" throughout the *Grade 8 Assessment Sourcebook* in the "Scoring Guide."

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 results of the Quick Check assessments in the "Differentiation Library" of the *Grade 8 Teacher's Edition* provide guidance for interpreting student performance to provide targeted supports. For example, in "Quick Check 4–2," students scoring 0–3 are provided with reteaching resources, and students scoring 4–5 are assigned enrichment activities.

Online instructional assessments and scoring information, described in the *Grade 8 Assessment Sourcebook* "Assessment Data," provide guidance for interpreting student performance through class and individual reports on specific items, whole assessments, and groups of assessments.

Teachers can see patterns in TEKS and the DOK of student performance using the "Item Analysis Chart" in the *Grade 8 Assessment Sourcebook*. Corresponding intervention lessons are provided for each missed item. For example, if a student misses question one, the intervention activity is M23.

The *Grade 8 Assessment Sourcebook* "Instructional Outcomes Informed by Assessment Results" provides guidance for interpreting student performance by the different types of tests. For example, the guide suggests that for specific diagnostic results, the teacher may need to "develop individual study plans, make grouping decisions, prescribe specific activities to fill in gaps in understanding all prerequisite content."

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 for the use of included tasks and activities to respond to student trends in performance on assessments. For example, per the *Assessment Sourcebook*, online assessments in the Savvas Realize program automatically provide differentiation tasks to target specific skills toward mastery.

In the *Grade 8 Assessment Sourcebook*, students scoring 0–3 on the "Quick Check 4–2" are provided with reteaching resources, and students scoring 4–5 have recommended enrichment activities. Additionally, there is a suggestion for emergent bilingual students to perform the "Build Mathematical Literacy Activity."

Using the "Item Analysis Chart" in the *Grade 8 Assessment Sourcebook*, teachers can see patterns in student performance in the TEKS and DOK. Corresponding intervention lessons are provided for each missed item in the *Grades 6–8 Intervention System*.

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

Materials include tools for students to track their own progress and growth. For example, in the *Eighth Grade Progress Monitoring Guide*, the "Student Progress and Growth Tracker" allows students to record their progress before, during, and after each lesson. Students identify their progress and growth as the lesson advances through a math goals column stating, "I can. . . With help. . . Not yet."

The materials include tools for teachers to track student progress and growth. For example, the "Student Progress and Growth Teacher Tool," aligned to grade-level TEKS, allows teachers to track student progress before, during, and after the topic. There are three indicators used: working on it, almost there, and got it.

Additionally, in the *Grade 8 Online Resources*, there are tools for both students and teachers to track progress and growth for each topic. These allow students to reflect on math goals before, during, and after a topic, and teachers to track student growth before, during, and after a topic.

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.

Materials include teacher guidance for differentiated instruction for students who have not yet reached proficiency on grade-level content and skills. The *Grade 8 Teacher's Edition*, Lesson 3-3, provides guidance for students who "may need to review the slope formula with negative integers and recognizing slope" in "Support Student Understanding," where teachers are provided guidance questions to assist in students' lack of understanding of the concept.

Materials include teacher guidance for differentiated activities for students who have not yet reached proficiency on grade-level content. The *Grade 8 Teacher's Edition*, Lesson 3-4, provides guidance for teachers to use "Braining Camp," digital manipulatives marked by a specific icon, to support students who have not yet reached proficiency in understanding the y-intercept of linear equations.

Materials include teacher guidance for paired lessons for students who have not yet reached proficiency on grade-level content and skills. For example, paired lessons with scaffolded questions and tasks are provided in the *Grade 6–8 Intervention System*. Intervention Lesson K32 guides teachers in supporting students with distributive property and combining like terms to better understand solving equations.

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)

Materials include pre-teaching for unfamiliar vocabulary and references in text. In the *Grade 8 Teacher's Edition*, Lesson 3-5, there is an embedded support called "Language Support," where teachers are provided guidance to clarify specific terms in the lesson. In "Example 1," the meanings are scaffolded between proportional and non-proportional relationships.

Materials include embedded supports for unfamiliar vocabulary. For example, the *Grade 8 Teacher's Edition* includes the "Additional Vocabulary Support" section in each topic, which provides a resource that can be used as a pre-teach or a re-teach tool. Topic 3: "Resources" provides students with a vocabulary box with terms such as *constant rate* and *unit rate*, which students use to complete sentences.

Materials include pre-teaching supports for vocabulary and references in text. In the Topic 6 Topic Opener: "Analyze and Graph Linear Equations," the "Math Walk" video introduces students to systems of equations in real-world situations by focusing on the growth rates of people, plants, and animals.

More pre-teaching and embedded supports for unfamiliar vocabulary are found in the "Metalinguistic Transfer to Spanish" section, where teachers are informed of transferable and non-transferable skills, such as the way English and Spanish languages the subject-verb-object order in sentences and providing a list of cognates such as *volume* and *volumen*. The recommended terms to emphasize are *express* and *calculate*.

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.

Materials include teacher guidance for differentiated instruction for students who have demonstrated proficiency in grade-level content and skill. In the *Grade 8 Teacher's Edition*, the section "Advancing Questions" includes teacher guidance on how to ask "questions to help students think more deeply," which includes questions like, "How do you think the decimal representations would change if you included negative numbers as possible numerators?"

Materials include teacher guidance for differentiated enrichment for students who have demonstrated proficiency in grade-level content and skill. In the "Program Overview" of the *Grade 8 Teacher's Edition*, teachers are provided guidance for a series of enrichment activities in response to student performance on assessments. The table provided in "Differentiated Instruction" lists various enrichment activities, including but not limited to "Digital Games," "Hands-On Games," and "Pick a Project."

Materials include teacher guidance for differentiated extension activities for students who have demonstrated proficiency in grade-level content and skill. In Lesson 3-5, teachers are guided to "Extend Student Thinking" by challenging students to answer, "What is the slope of a horizontal line? Sketch a graph and explain your answer," and then use a model to justify the response.

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.

Materials include explicit (direct) prompts to support the teacher in modeling and explaining the concept(s) to be learned. In the *Grade 8 Teacher's Edition*, Lesson 2-1 includes guided supports for the teacher with questions to be asked, such as, "How would a diagram help you write an equation?" and "How do you know that (8/6)x and (1/6)x are like terms?" connecting the model to the concept of combining like terms.

Another example is in Lesson 2-1, which includes guidance to support the teaching of modeling and explaining as students learn to write and solve equations. The guidance tells the teacher to observe students on a task and possible questions to ask as students share their thinking. Then, the teacher is prompted to have students articulate the connections they have made between models and equations.

Within Lesson 8-1, the section "Math Talk" and its text include explicit (direct) prompts and guidance to support the teacher in modeling and explaining the concept(s) to be learned. This section of text prompts the teacher to ask the students specific questions involving circles for this area of a circle lesson and then guides the teacher to anticipate what students will be thinking and discussing, such as how circles are alike and different.

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

Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches. In the *Grade 8 Teacher's Edition*, Lesson 2-3: "Explore and Share," there are teacher recommendations for effective lesson delivery and facilitation for whole-group instruction, small-groups, and early finishers.

Teachers are provided with a variety of recommended instructional approaches for effective lesson delivery and facilitation in each topic. In Lesson 2-1, the "Math Talk" topic is "Number Sense," with students looking for patterns in algebra strings. The "Exit Ticket" provides teachers with guidance on possible student errors, such as not attending to the meaning of the terms.

Each topic begins with a section titled "Math Background: Key Concepts" that provides the teacher with professional development videos, including a "Topic Overview" and "Listen and Look For" within a lesson; additionally, question previews, TEKS previews, and advanced concepts previews for teachers all prepare the teacher for effective lesson delivery.

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.

Within the *Program Overview Grades 6–8*, guidance and recommendations for teachers are outlined with an overview of the multiple types of practice (e.g., guided, independent, collaborative) explained, along with definitions and symbols for recommended structures (e.g., whole-group, small-group, individual). This section includes a table exhibiting various parts of the lessons and indicating which parts have specific practices and structures. The "Practice and Problem Solving" parts of each lesson include guided, independent, and collaborative practices as well as whole-group, small-group, and individual structures.

In the *Grade 8 Teacher's Edition*, Lesson 2-2 includes teacher guidance on how to effectively implement collaborative and independent practices for the group work task in the "Choose a Problem" portion of lessons. This is followed by "Practice and Problem Solving" for independent practice and guidance on effective implementation.

In Topic 7: "Review What You Know," the materials guide teachers to multiple types of practice, such as having students independently or collaboratively create a poster with various representations for vocabulary terms like *diagonal*. The materials suggest teachers display the posters as visual aids as students proceed through the unit. For further review, the materials suggest using the online platform and going to "Academic Review Activities."

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.

In the *Grade 8 Teacher's Edition*, Lesson 3-2, teacher guidance includes "Targeted ELPS Support," where teachers are provided tasks and questions to assist students from each level of language proficiency, specifically ELPS 2B. The various levels of language proficiency in this lesson include beginning, intermediate, high intermediate, and advanced. Students on the beginning level are asked to "explain vocabulary in their own words;" however, students on the high intermediate level are tasked with explaining the vocabulary and sorting the terms into two related groups.

Additionally, in Lesson 8-2, the teacher is given guidance for students working at various levels of language proficiency from pre-production to advanced. Students at the pre-production level are asked to identify the shapes of fish tanks in a problem, while intermediate students explain how the area of the base of fish tanks can be found.

Another example is found in Topic 5, as students are learning about investigative data. In Example 1, students calculate mean absolute deviation, and the materials provide teacher guidance on how to navigate various levels of language proficiency. Students at the pre-production level are paired with another student who speaks their language so they can explain the steps, and advanced students prepare a presentation on how to calculate M.A.D. and present it to the class.

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

The *Grade 8 Teacher's Edition* includes implementation guidance to support teachers in effectively using the materials in state-approved ESL programs. In Lesson 3-5: "Analyze Linear Equations," there is implementation guidance with "Language Support" located in the lesson overview. "Language Support" suggests an activity to support understanding of the terms *proportional relationship* and *nonproportional relationship*. Students read aloud the equations and terms, then discuss how the equations are alike and different. There is a detailed description of how to implement the activity within the lesson, along with guidance questions.

More implementation guidance is found in Lesson 4-1: "Understand Relations and Functions." The guidance encourages using the online resource, "Build Mathematical Literacy Activity," specifically suggested for emergent bilingual students after completing the Quick Check assessment. The task is recommended for additional practice with the academic language.

Another example is found in Lesson 8-5, where the material provides teacher guidance to assist emergent bilingual students in understanding the term *hemisphere* while finding volume.

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.

In the *Grade 8 Teacher's Edition*, all topics have a "Linguistic Accommodations" section embedded, where teachers are provided a detailed description of vocabulary terms associated with the topic. The topic's academic vocabulary is listed along with background knowledge students should be familiar with from other lessons, and a section called "Metalinguistic Transfer to Spanish" focuses on skills that can be transferred from English to Spanish. In Topic 3, cross-linguistic connections are made with "terms follow the same noun phrase structure," like *systems of equations* and *sistema de ecuaciones*.

Additionally, Topic 3 includes cognates and false cognates for the topic, increasing comprehension, building background knowledge, and making cross-linguistic connections. For instance, *solution* correlates with *solucion* and false cognates listed reduce confusion between *yard* and *yarda*.

Lessons also have "Language Support" activities that include embedded guidance for teachers to support emergent bilingual students. The activity in Lesson 3-1 provides teacher guidance by listing a series of questions to assess student understanding of the terms in "Example 1" of the lesson. Questions to make cross-linguistic connections through oral discourse include, "What words describe the two types of planes being compared?," "What does the term cruising speed mean?," and "How is the cruising speed related to the constant of proportionality?"

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.

Practice opportunities throughout a lesson and/or unit (including instructional assessments) require students to demonstrate depth of understanding aligned to the TEKS. For example, in the *Grade 8 Teacher's Edition*, Lesson 5-4, Step 3: "Practice and Problem-Solving," students demonstrate understanding of TEKS 8.11A by first locating points on a graph in Problem 6, progressing to applying knowledge and interpreting a scatter plot. Problem 8 requires students to analyze two scatter plots and draw conclusions from the comparison.

In Quick Check 3–3, students demonstrate depth of understanding at various levels of rigor, starting by graphing a given equation and progressing to analyzing graphs, verbal descriptions, and tables to develop an equation. Question 5 uses a multi-select question to assess understanding of slope.

Practice opportunities that require students to demonstrate depth of understanding aligned to the TEKS are present in Lesson 8-2" under "Practice and Problem Solving" where questions 7 and 8 ask students to determine the volume of cylinders. They are also present in the Topic 7 "Mid-point Check" assessment, where students determine missing side lengths, the Pythagorean theorem, and its inverse while explaining it using math vocabulary.

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

Questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics TEKS. For example, in the *Grade 8 Teacher's Edition*, Lesson 3-3 focuses on TEKS 8.4C, where students use data from a table or graph to determine slope and y-intercept. Example 1 starts with a concrete model, then translates to a representational model on a graph, and then illustrates the abstract model that corresponds with the concrete and representational models.

Lesson 7-5, aligned with TEKS 8.7D, focuses on determining distance using the Pythagorean Theorem and includes questions and tasks that progressively increase in rigor and complexity, leading to grade-level proficiency. During this lesson, students apply the Pythagorean Theorem formula to a problem-solving strategy in Example 3. Questions start with basic identification of points on a grid, "What third point along with points A and B forms a right triangle?" and progress to analysis with "Are you using the Pythagorean Theorem differently here than in Example 2? Explain."

In another example, Lesson 4-1 starts by sorting and breaking down functions, then eventually has students connect mathematical ideas by answering the why and giving detailed explanations.

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 demonstrate coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts. For example, the Topic 4 "Math Background: Coherence" section of the *Teacher's Edition* highlights clear connections across Topic 3, Topic 4, and Topic 5. Topic 3 builds on students' understanding of proportional relationships by having them graph and compare, leading to Topic 4, introducing relationships and functions using multiple representations, including the linear equation y = mx + b. This learning progresses into Topic 5, where students apply their knowledge of linear functions to analyze linear associations in scatterplots, reinforcing patterns and relationships among concepts.

Each topic in the *Grade 8 Teacher's Edition* includes a "Math Background: Coherence" section that shows alignment with grades 6–9. For example, Topic 1 connects to grade 7 work with rational numbers and extends to grade 9 concepts involving properties of rational and irrational numbers. These vertical connections help students build a deeper understanding of number systems across grade levels.

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.

Materials demonstrate coherence across units by connecting the content and language learned in previous, future, and current courses/grade levels. For example, the "Math Background: Coherence" sections of the *Teacher's Edition* connect the content and language from both previous and future grade levels. Topic 1 connects to grade 7 work with rational numbers and extends to grade 9 study of rational and irrational number properties. This structure ensures students build on prior knowledge while preparing for more advanced concepts.

Topic 3 introduces students to slope-intercept form ($y = mx + b$), building on their grade 7 understanding of proportional relationships expressed as $y = kx$. This progression prepares students for grade 9, where they work with linear functions written as $f(x) = a + bx$. These connections reinforce consistent mathematical language and conceptual growth across grades.

In Topic 7, students learn about the Pythagorean Theorem, building on their understanding of triangle properties and geometric equations in grades 6 and 7. This foundational knowledge supports Algebra I content, where students use the theorem to prove triangle similarity formally. The concept is developed across grades, demonstrating coherence through deepening geometric reasoning.

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.

In the *Grade 8 Teacher's Edition*, Lesson 7-4 has students apply the Pythagorean Theorem to real-world situations, building on the conceptual understanding introduced in Lesson 7-2, including the theorem and its converse. This lesson also prepares students for Lesson 7-5, where they use the theorem to calculate distances between points, demonstrating coherence by connecting mathematical reasoning across lessons.

Another example is in Lesson 3-1, where students use unit rates to compare proportional relationships through graphs and tables. This builds directly on grade 7 skills, where students first learned to represent and analyze proportional relationships, showing continuity in mathematical language and representations.

Materials demonstrate coherence at the lesson level by connecting students' prior knowledge of concepts and procedures. Lesson 2-1 has students combine like terms and solve equations, reinforcing concepts from grade 6 and grade 7, where they used variables and created simple equations to represent problems. The coherence section explains that students will review and apply one- and two-step equation strategies before progressing to solve equations with variables on both sides, supporting a smooth transition to more complex problem-solving.

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.

Lesson resources in the digital platform *Savvas Realize* provide spaced retrieval opportunities with previously learned skills and concepts across lessons and units in the "Differentiation Library." "Spiral Reviews" address a mixed review of concepts previously taught in both the grade 8 lessons and topics.

In the *Grade 8 Teacher's Edition*, Topic 5: "Review What You Know" provides spaced retrieval opportunities by revisiting slope, located in Topic 3. Determining slope connects to Lesson 5-5, analyzing bivariate data on scatterplots, and making predictions.

Lesson 2-1, on combining like terms to solve equations, provides spaced retrieval opportunities through combining like terms and solving one-step equations from grade 6 and two-step equations from grade 7. Later in Topic 2, students will solve equations with variables on both sides, which connects with previously learned skills and concepts within the unit.

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

Interleaved practice opportunities are found within the digital platform *Savvas Realize* in the "Differentiation Library" and include "Spiral Reviews," where the student completes a mixed review of previously learned skills and concepts in grade 8 lessons and topics.

Lesson 2-3: "Practice and Problem Solving," found in the *Grade 8 Teacher's Edition*, demonstrates opportunities for interleaved practice across the lesson by requiring the student to model, write, and solve equations and ask questions of varying DOK. Previous concepts, such as operations with rational numbers, are revisited and include various skills associated with adding, subtracting, multiplying, and dividing fractions, and decimals.

Another example of interleaved practice opportunities with previously learned skills and concepts across learning pathways is in the "Fluency Practice" in Topic 8, which revisits TEKS 8.8C from Topic 1, solving variables on both sides of the equation. Topic 8 builds on the previously learned skill and concept by

extending it to find the unknown coordinate to complete an ordered pair when one coordinate is given. Topic 8 covers TEKS 8.7A and 8.7B and uses 8.8C to solve for missing dimensions of the geometric figures.

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.

Tasks require students to analyze models and representations for mathematical concepts and situations. In the *Grade 8 Teacher's Edition*, Lesson 3-1: "Math Talk," the activity directs students to compare the graph and table to gain a deeper understanding of how relationships are represented.

Questions require students to analyze and evaluate models for mathematical concepts and situations. Example 3 in Lesson 3-1: "Try It" asks students to compare rates given in different forms, one verbal and one graphical. Teacher-guided questions include "How can you find the unit rate of Japan's train?"

Another example is in each topic with "Let's Model in 3 Acts" lessons, requiring students to create, analyze, and evaluate models to represent mathematical concepts and situations. In Lesson 4-5: "Breaking Point," Act 1 has students analyze the situation by answering questions; Act 2 has students create representations for the situations, and Act 3 has students evaluate their answers for reasonableness.

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

All topics in the *Grade 8 Teacher's Edition* have a "Let's Model in 3 Acts" lesson requiring students to create, analyze, and evaluate models to represent mathematical situations. In Lesson 9-2: "Driving a Bargain," Act 1, students analyze the situation by answering questions. In Act 2, students create representations for the situation, and in Act 3, they evaluate the representations for reasonableness.

Another example is found in Lesson 3-2, where students are challenged to draw three different roofs using straight lines and different steepness, creating a model to represent a mathematical situation. In Lesson 3-5: "Extend Student Thinking," the teacher is provided with guided questions to extend the understanding of slope with questions like, "What is the slope of a horizontal line? Sketch a graph and explain your answer." Students use the model to represent and justify the mathematical situation.

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

Questions provide opportunities for students to apply conceptual understanding to new problem situations and contexts. In Example 1 of Lesson 3-3 in the *Grade 8 Teacher's Edition*, the student determines the relationship between the length of fencing and cost. Conceptual understanding of determining the rule, learned in lower grades, helps students connect to the standard of this lesson.

At the beginning of each lesson, there is a "Conceptual Understanding" section, and Lesson 9-1 mentions that students understand interest is an important consideration in determining if a purchase is financially responsible. This is then demonstrated in the "Investigate" part of the lesson, titled "Is It Worth It?"

Tasks provide opportunities for students to apply conceptual understanding to new problem situations. The "Explore and Share" in Lesson 9-1 prompts students to use a mathematical model to find the new price, using conceptual understanding of percents and proportional reasoning to lead into the lesson about sales tax.

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.

In the *Grade 8 Teacher's Edition*, Topic 2: "Fluency Practice" provides an activity where students practice solving two-step addition and subtraction equations, which supports automaticity for grade-level tasks focusing on linear equations. The "Fluency Practice" allows students to build the automaticity and fluency skills necessary to analyze linear equations.

Another example is at the end of each topic, where the materials provide additional automaticity and fluency practice related to previous grade-level or foundational TEKS. The Topic 5: "Review" revisits scatterplots, correlations, mean absolute deviation, trend lines, clusters, and outliers.

Within the *Grade 8 Differentiation Library*, tasks are provided for students designed to build the automaticity and fluency necessary to complete grade-level tasks. These tasks are different from other activities within the materials. In Topic 2, the "Fluency Practice" task provided contains 17 problems for students to practice applying the laws of exponents to evaluate numerical expressions.

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.

In the *Grade 8 Teacher's Edition*, Lesson 2-4: "Talk About Math Ideas," students are provided opportunities to use any method to organize the information provided in the problem. These problems promote efficient, flexible, and accurate thinking by encouraging multiple methods of solving the problem.

The "Investigate" section of lessons provides more opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures within the lesson and throughout a unit. This section consistently encourages students to use a variety of methods to solve and represent mathematical procedures. In Lessons 3–7, students select how to determine how many beehives are needed.

Lesson 4-6: Assess and Differentiate provides opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures within the lesson. "Additional Practice" is

provided for students to practice the mathematical procedures of Lesson 4-6, which solves problems about intervals of increase and decrease. Students have the opportunity to practice applying their chosen technique in analyzing a given graph and to practice the application of evaluating reasonableness through written expression about intervals.

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.

Materials provide opportunities for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy within the lesson and throughout a unit. In each unit of the *Grade 8 Teacher's Edition*, there is a lesson titled "Let's Model in 3 Acts," and Lesson 3-8: "Meal Deal" utilizes this model; in Act 2, the student develops procedures, processes, and solutions to model the problem using various tools, and in Act 3, students evaluate their model for efficiency, flexibility, and accuracy and adjust where necessary. Teacher-guided questions include, "How useful was your model at predicting the answer?" and "How could your model better represent the situation?"

Within Lesson 6-1, students have the opportunity to choose a problem to solve, discuss solution strategies, and present and analyze their findings, providing the opportunity to evaluate the relationships between congruent figures. Students evaluate which problem they will choose and then analyze the most efficient method for solving the problem to ensure its accuracy. "Question A" provides students the opportunity to examine an electronic game, look for two congruent pieces, and determine how they are related, leading them to reflect upon the procedures, processes, and solution(s) they determined when proving their chosen problem.

At the beginning of each unit in the *Grade 8 Student Edition* are the "Pick-A-Project" options that provide opportunities for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy throughout the unit. In Topic 6, students have four options to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy throughout the unit and choose the best representation of their understanding of congruent shapes.

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

In the *Grade 8 Teacher's Edition*, Lesson 2-4 starts by using a bar diagram to help write the equation using the distributive property and variables on each side of the equal sign in Example 1. Then Example 2 takes the process further by using a negative integer as the coefficient, and Example 3 progresses to have distributive property on each side of the equal sign. The examples increase in rigor, which leads to approaches that are more efficient and require abstract modeling.

Another example of embedded supports for teachers to guide students toward increasingly efficient approaches is in Lesson 5-3 in the "Investigate" section, which has embedded supports for teachers to anticipate strategies and errors that students may make while working on reading and creating

scatterplots. There are questions to redirect students to more efficient approaches, like when the teacher is prompted to ask, "How can you make sure a trendline is perfectly straight?"

Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches. In Lesson 3-3, under "Visual Learning," the teacher guides the students in writing linear equations, then guides student learning and practice progress toward students approaching an understanding of slope by graphing linear equations.

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 *Grade 8 Teacher's Edition* includes Lesson 7-2, which has a section in the "Lesson Overview" that explicitly states how the lesson will address the TEKS conceptually and procedurally. The "Conceptual Understanding" states, "Students construct a logical argument to derive a proof of the Pythagorean Theorem." The "Application" section states, "Students apply their understanding of Pythagorean Theorem to calculate the missing side length or hypotenuse of a right triangle." These two sections of the "Lesson Overview" correlate with the TEKS and the learning objectives for the lesson.

Additionally, the beginning of each lesson provides a "Balance" section that provides the teacher with explicit conceptual and procedural information. Lesson 8-1 explicitly states that the students will calculate and apply formulas for finding surface area, aligned with TEKS 8.2B and 8.7B.

In Topic 6, the section "Mathematical Process Standards" explicitly states how the conceptual and procedural emphasis of the TEKS are addressed while teaching congruence and similarity to communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate (TEKS 8.1D). The guidance explicitly states: "As students solve transformation problems, look for these behaviors to assess and identify students who demonstrate proficiency with these standards with mathematical reasoning and explaining," and TEKS 8.1D is the focus of a chart on this page listing various math concepts to be learned during this unit, including for the student to make sense of the relationship (procedural) between angles created by parallel lines and a transversal (conceptual).

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 *Grade 8 Teacher's Edition*, Lesson 2-3: "Solve More Equations with Variables on Both Sides," uses concrete models and manipulatives, pictorial representations, and abstract representations in "Example 3." Students use algebra tiles or the digital algebra tiles for manipulatives and are asked to draw the algebra tiles before writing the equation represented by the manipulatives and pictorial representations. Lastly, students solve the equation using abstract concepts.

Another example includes Lesson 7-3, where the "Try It" problem involves asking the students to tie 12 knots in a piece of string and form a right triangle with the piece of knotted string, representing how farmers measured their land in history. The students then connect the Pythagorean Theorem to the number of knots as measurement units on each side of the triangle. This problem contains tasks that include the use of a concrete model and abstract representations.

The use of pictorial representations and abstract representations is present in Lesson 7-2: "Digital Discovery," which includes a question relating the Pythagorean theorem to the size of cell phones and asks students to determine the relationship between a phone's side length and its screen size. A picture of a cell phone is provided, with labeled side lengths and a labeled diagonal measurement, and students are tasked with applying the Pythagorean theorem to the measurements. Additional practice includes measurements without the diagonal length for students to calculate the screen size of a picture of a television.

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.

In the *Grade 8 Teacher's Edition*, Lesson 6-2: "Analyze Translations" supports students in connecting and explaining concrete models to abstract concepts with guidance questions such as, "If the figure is translated 8 units down, how would you determine what the y-coordinates of the image are?" This question connects concrete and representational models to abstract concepts such as integer subtraction.

Lesson 7-1: "Go with the Flow" guides students in creating, defining, and explaining concrete and representational models of abstract concepts. Students watch a video and guess what percent of the sand will fit into the largest square. Then, they develop a model to justify their responses. Next, the teacher reveals the answer, and students revisit their models, reflect on where the errors are, and adjust their models.

Additionally, Lesson 2-6 includes the activity "Powering Down," where students use manipulatives, create models, and use algorithms to solve two-step equations with variables on both sides and explain how the concrete and representation concepts connect to abstract concepts.

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.

In the *Grade 8 Teacher's Edition*, Lesson 1-2, students are tasked with inspecting the Venn diagram of Example 1. Teacher guidance encourages partners to take turns describing the categories of numbers to develop academic mathematical language. Student embedded materials ask, "How can you use the definition of each number set to classify numbers?" This allows students to use the diagram to develop conceptual understanding of classifying numbers.

In Lesson 3-1, students are asked to compare an equation and a graph in Example 2. The BrainingCamp Icon is shown to encourage using digital manipulatives, such as graphs, to develop an understanding of comparison. The embedded teacher guidance question, "If you graphed the line representing Brianna's score, would her line be steeper or less steep than Daniel's line? Explain," demonstrates the use of a manipulative to develop academic vocabulary.

In Topic 7, students are introduced to "Understanding and Applying the Pythagorean Theorem" by viewing a "Math Walk" video about determining the length of a diagonal, and then discussing the video with a partner with questions such as, "What other information do you need to answer the question?" and "What did you notice?" Students develop academic mathematical language using the video subject matter to discuss the concept of the Pythagorean Theorem.

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

Lesson 4-2 in the *Grade 8 Teacher's Edition* gives teacher guidance to scaffold and support students analyzing two visuals to identify functions. Prompts include questions such as, "What are the differences between the shapes of the two graphs?"

In Lesson 6-9, "Language Support" provides teacher guidance for student discussion and written expression through the use of sentence stems on angles, lines, and transversals. One of the sentence stems is "Two angles whose measures sum to 180 degrees are _____." This teacher guidance provides scaffolding and supports students' development and use of academic mathematical vocabulary in context.

In Lesson 1-2, the "Language Routine: Stronger and Clearer Each Time" provides a prompt to instruct students to read the example and inspect the Venn Diagrams in pairs. The teacher guidance then states to encourage each set of partners to take turns describing the categories of numbers, repeating the descriptions as necessary to build confidence. This activity provides teacher guidance to support students' development and use of academic mathematical vocabulary in context through written expression and discourse.

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.

Lesson 3-3 in the *Grade 8 Teacher's Edition* includes an activity in "Language Support" that tasks students to explain how to find the distance the drone travels in three seconds using the graph of "Example 2," and teacher guidance states to "encourage students to refine and clarify their explanations by pressing each other for details" before students collaborate with peers to develop a final explanation of how to use the graph to find the distance.

Teacher guidance is embedded in the "Targeted ELPS Support" for supporting vocabulary, syntax, and discourse in Lesson 3-2 as slope and constant of proportionality are discussed.

The "Language Support" activity in Lesson 3-1 guides the teacher in supporting students in understanding mathematical academic vocabulary such as *planes*, *cruising speed*, and *constant of proportionality*. The materials support the application of appropriate mathematical language to include vocabulary and discourse, in order for students to hear, refine, and use math language with peers. The materials provide exemplars based on the "Example 1" problem that is presented along with this language activity.

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.

In the *Grade 8 Teacher's Edition*, the process standards are integrated into multiple tasks and questions, and are identified with teal-colored font. In the "Connect" section of Lesson 8-2, Item 1, students are asked, "How is the strategy used in 'Choose a Problem' the same as the strategy in 'Fish Tank Faceoff?'" after they have selected techniques for each task before comparing them, integrating process standard TEKS 8.1C, "select tools and techniques as appropriate to solve problems."

In Topic 6, the TEKS process standards integrated within the lesson are listed on the first page of Lesson 6-3. One process standard listed is TEKS 8.1F, "analyze mathematical relationships to connect and communicate mathematical ideas," which is integrated when students investigate relationships within reflections and communicate them.

Additionally, in the "End Matter," there is a "Correlation to TEKS" page listing every mathematical process standard aligned with the lessons incorporating each process standard. For example, process standard TEKS 8.1E is "create and use representations to organize, record and communicate mathematical ideas," and it is integrated into Lesson 1-7, Lesson 3-1, and Lesson 9-6.

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

The *Program Overview Grades 6–8* contains the "From the Authors: Grade 8 Content Organization Rationale," which details the relationship between topics throughout the course. Within the rationale for each topic, there is a section called "Connections" that begins with the statement, "Students apply mathematical process standards. . ." This introductory statement implies that by using mathematical process standards, students are able to achieve mastery of the objectives provided in the section.

The "From the Authors: Mathematical Process Standards" section describes how the process standards are incorporated and connected throughout each lesson. The following color-coded labels throughout the course correlate with a process standard and instruct the teacher/student that the activity connects with a process standard: "Apply Math" incorporates TEKS 1A, "Plan" and "Check" incorporate TEKS 1B, "Select Tools" incorporates TEKS 1C, "Communicate" and "Reason" incorporate TEKS 1D, "Represent"

incorporates TEKS 1E, "Analyze" and "Connect" incorporate TEKS 1F, and "Explain" and "Justify" incorporate TEKS 1G.

In the "Front Matter" of the *Grade 6 Teacher's Edition*, a section titled "Mathematical Process Standards" contains a subheading titled "Process Standards and the Problem-Solving Handbook." This subheading describes how the "Problem-Solving Handbook," embedded within the materials, supports content and process standards by presenting a problem-solving model to the students along with a problem-solving recording sheet where students show their thinking. For example, process standard TEKS 1B expects the students to use a problem-solving model to analyze, formulate, justify, and evaluate the problem-solving process in addition to finding the solution.

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

In the *Grade 8 Teacher's Edition*, the Topic 8 "Topic Planner" provides a detailed overview of the lessons throughout the topic, including how TEKS process standards are incorporated and connected throughout the unit. The process standards for Topic 8 are listed in the TEKS section of the overview, and the "Mathematics Objective" includes verbs associated with the process standards of the lesson and topic. For example, Lesson 8-3 incorporates process standards TEKS 8.1A, 8.1B, 8.1C, and 8.1F in the lesson, and Lesson 8-4 incorporates TEKS 8.1B, 8.1C, and 8.1F.

Another example is found in the Topic 7 "Topic Planner," where each process standard featured in the topic is categorized by which lesson(s) it is incorporated and connected throughout the unit. For example, process standard TEKS 8.1C is incorporated in Lessons 7-1, 7-2, 7-3, and 7-4. The materials also link TEKS 8.1C to a specific lesson, with page numbers to the question(s) and/or activity.

The Topic 9 "Mathematical Process Standards" section suggests two process standards to focus on throughout the topic: TEKS 8.1D and 8.1F. A table is provided with mathematical objectives incorporated and connected throughout Topic 9, relating them to the capabilities of a proficient student. For example, under the TEKS 8.1D column, mathematically proficient students can "explain the difference between simple and compound interest."

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

In the *Grade 8 Teacher's Edition*, each lesson overview provides the process standards covered within the lesson. In Lesson 6-1, the process standards are TEKS 8.1C and 8.1D, and these standards are demonstrated in various questions and tasks throughout the lesson. TEKS 8.1C is indicated in "Item 17: Part A" of the "Practice and Problem Solving" with "Select Tools," where the students are encouraged to select a tool to draw a reflection of a given triangle across a line.

Another example is found in Lesson 3-2, where the process standards TEKS 8.1D and 8.1E are demonstrated in various questions and tasks throughout the lesson. TEKS 8.1D is indicated in "Item 7" of "Practice and Problem Solving" with "Communicate Reasoning," where the students explain how to find the slope of a line that passes through points (0, 0) and (2, 4).

In the "End Matter," the "Correlation to TEKS" lists every mathematical process standard numerically, 8.1A–8.1G, and details which lessons and units contain the standard. For example, TEKS 8.1G is incorporated in lessons and units from Topics 1–9, with a heavier incorporation in Topic 3: "Analyze and Graph Linear Equations," and Topic 7: "Understand and Apply the Pythagorean Theorem."

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.

In the *Grade 8 Teacher's Edition*, in the Topic 4 Topic Opener: "Use Functions to Model Relationships," students watch a "Math Talk" video that compares the growth rate of an animal to linear relationships. This activity allows students to think mathematically by later referencing the video to compare what they learn about constructing functions that model linear relationships to the growth rate discussed in the video. A guidance question encouraging problem-solving perseverance asks, "What math did you learn that could help you answer the question or find the answer a different way?"

In Lesson 4-2, students investigate a real-world situation to predict the number of days a whale has to travel to its destination when given different distances for seven different days. Students are provided the opportunity to think mathematically by choosing a strategy to solve the problem. A prompt listed in the activity states, "What do the values in the table tell you about how fast the whales are travelling?" which requires students to persevere through solving problems and make sense of the math as they work toward a solution.

At the beginning of each lesson in the *Grade 8 Student Edition*, there is an introduction to the lesson that requires students to think and to make sense of the mathematics being presented. In Lesson 7-2, in an introduction to writing and solving inequalities, students determine how to write expressions representing moving data from flash drives to hard drives, from smaller data storage to larger data storage. Students then record their thinking, communicate math ideas, evaluate reasonableness, and connect math ideas, giving students the chance to not only think mathematically and persevere through problem solving, but also to make sense of the math.

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

In the *Grade 8 Teacher's Edition*, Lesson 4-2 has a "Try It" task where students select a technique provided in "Example 1" to solve the problem. The techniques include writing an equation, creating a diagram, or using a graph. Students understand there are various ways to represent and solve the problem.

Lesson 4-5 provides students with the task of determining how many pennies six strands of spaghetti could hold before breaking. "Question 7" of the task asks, "What tools will you use to solve the problem? Explain how you will use them strategically?" illustrating that there are multiple ways to represent this problem. "Question 8" of the task states, "Represent the situation using mathematics," which is completed through small group discussions with students explaining and later justifying their representations in "Question 12."

In the *Grade 8 Student's Edition*, Lesson 4-1: "Practice and Problem Solving," students learn about functions and the multiple ways they can be represented and solved. In the fourth problem, students are given a set of ordered pairs, and create an "arrow diagram" or mapping that represents the same ordered pairs. Students create multiple representations of the same data, which strongly supports their understanding and their ability to explain and justify an answer.

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.

In the *Grade 8 Teacher's Edition*, Lesson 6-8, Step 2: "Visual Learning" provides opportunities for students to collaborate to complete various tasks requiring them to solve problems determining scale factor, write explanations about how to find the scale factor, and engage in a Think-Pair-Share during the section "Talk About Math Ideas."

In Lesson 7-3, students complete the "Explore and Share" activity, where students collaborate to determine if three straws of different lengths make a right triangle. As students work, materials suggest that teachers ask questions based on observations to guide student understanding with discussion questions, such as, "Is there anything you learned in the previous lesson you could apply to this problem?" This question provides opportunities for students to discuss math with both their teachers and their peers.

In the *Grade 8 Student's Edition*, Lesson 8-5 on finding the volume of spheres directs students to "Talk About Math Ideas" with their peers and discuss, "Why do the volume formulas for cylinders and cones include an exponent of 2, but the volume formula for a sphere has an exponent of 3?" Teachers are encouraged to guide students in discussing the question with each other, either in group or partner

settings, and listen for key terms to create a teacher-to-student dialogue that enhances the student-to-student dialogue.

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.

In the *Grade 8 Teacher's Edition*, Lesson 7-2, student activity, "Choose a Problem," students select from four different problems and solve the selected problem individually. The teacher then groups students based on their selected problem, and students share their solution strategies. The groups present their findings to the class, and other groups ask questions and comment on the problem-solving approaches. Teacher guidance provides questions that center discussions around justifying the Pythagorean Theorem; for example, "Given any three numbers, how can it be determined whether they represent the sides of a right triangle?"

In Lesson 7-1, students participate in a collaborative task to develop a model to solve a given problem. During the collaboration, students explain and justify their reasoning, and after the teacher reveals the answer, students reflect on their model. Student prompts that promote reflection include "Would you change your model now that you know the answer? Explain," and "Explain how you used a mathematical model to represent the situation? How did the model help you answer the main question?"

In Lesson 3-8, "The Hook" activity supports teachers in guiding students to share and reflect on their problem-solving approaches by asking students to watch a video to determine how much water a person wastes while brushing their teeth and having teachers take advantage of student reactions while watching the video with questions such as, "What did you notice? What did you wonder?" Students then answer brainstorming questions, and teachers are guided to have students share their thoughts on problem solving, before asking the main question, "How much water was wasted?" Teachers are guided to facilitate student discussions about their predictions, and students explain and justify how they arrived at their predictions through writing and reflecting on their problem-solving approaches.

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

In the *Grade 8 Teacher's Edition*, Lesson 3-4, "Practice and Problem Solving" item 11, includes teacher guidance in the event a student has a misconception related to deciding whether the y-intercept is a point or a number. The teacher is prompted to ask, "How are the coordinates of a point and the value of the y-intercept different?"

In Lesson 3-3, the materials guide teachers to anticipate student misconceptions when deriving an equation without a graph. If the student has difficulty, the materials suggest teachers ask questions such as, "How does the unit rate relate to the constant of proportionality?" and "How can you use the constant of proportionality to write an equation of the form y=mx?"

The Lesson 1-3 "Exit Ticket" guides the teacher if students answer the following question incorrectly: "Catrina has sewn trim on three of four sides of a square pillow. The side lengths are the square root of 21 inches. Which is the best estimate of the amount of trim she needs for the last side?" The student may have misunderstood the scenario and divided the number under the radical by four, instead of finding the square root. The teacher is guided to re-read the problem with students, focusing on the second sentence, which states that each side length is the square root of 21 inches.

In Lesson 1-3, the materials state that teachers should ask questions to help students with multiplying decimals, as they work through "Example 2." To prevent misconceptions, one question suggested is, "How can you determine where to place the decimal in the product of two decimals?" An answer is provided for the teacher to offer student feedback: "Add the number of decimal places for each factor to determine the total number of decimal places in the product, and adjust for zeros that are the last numbers to the right of the decimal point."