

# Savvas Learning Company LLC

English Mathematics, 6

ENVISION+ TEXAS MATHEMATICS 2027 (PRINT + DIGITAL), GRADE 6

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
<b>Full-Subject, Tier-1</b>	<b>9798213463309</b>	<b>Both Print and Digital</b>	<b>Static</b>

## Rating Overview

TEKS SCORE	ELPS SCORE	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	100%	89	Flags Not in Report	Flags in Report	0

## Quality Rubric Section

RUBRIC SECTION	RAW SCORE	PERCENTAGE
1. <a href="#">Intentional Instructional Design</a>	28 out of 28	100%
2. <a href="#">Progress Monitoring</a>	26 out of 26	100%
3. <a href="#">Supports for All Learners</a>	27 out of 27	100%
4. <a href="#">Depth and Coherence of Key Concepts</a>	19 out of 19	100%
5. <a href="#">Balance of Conceptual and Procedural Understanding</a>	41 out of 41	100%
6. <a href="#">Productive Struggle</a>	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	20
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 6 Teacher's Edition* includes a scope and sequence outlining the Texas Essential Knowledge and Skills (TEKS) and concepts taught in the course, along with vertical alignment for secondary mathematics courses.

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 English Language Proficiency Standards (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 *Grade 6 Teacher's Edition* includes suggested pacing for 165, 180, and 210 days in "End Matter," to support effective implementation for various instructional calendars.

Each topic/unit in "End Matter" 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 6 Teacher's Edition*, explaining connections within each topic from previous content taught and future lessons. In the *Grade 6 Teacher's Edition*, Topic 2: "Math Background: Coherence," the following prompts are asked and answered: "How does Topic 2 connect to what students learned earlier?" "How is content connected within Topic 2?" and "How does Topic 2 connect to what students will learn later?"

In the *Grade 6 Teacher's Edition*, "Program Overview Grades 6–8," there is a graphic representation outlining the progression of content in each topic supporting an explanation for the rationale of the unit order.

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

Materials include protocols with corresponding guidance for unit and lesson internalization. In the *Lesson Implementation Guide*, the "Grade 6 Instructional Leader Topic Internalization Protocol" provides instructional leaders with guidance 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.

The "Grade 6 Instructional Leader Topic Internalization Protocol" includes protocols with corresponding guidance for unit and lesson internalization, with a breakdown of lessons including objectives, essential understanding, sequencing, and instructional strategies.

The "Grade 6 Instructional Leader Topic Internalization Protocol" includes protocols with guidance for lesson internalization with 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 6 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 for instructional leaders to utilize when guiding teachers through the internalization process.

Materials include resources for instructional leaders to support teachers. In the *Grade 6 Teacher's Edition*, professional development videos (QR Code) are provided to model the teaching of different parts of the lesson. For example, Lesson 1-4 provides a professional development video to model teaching a lesson.

A "Classroom Observation and Analysis Tool" guides instructional leaders in supporting teachers with a checklist for feedback and provides actions that can be directly observed. The checklist addresses multiple elements of the lesson cycle with a rationale for each step and suggestions for teachers to improve curriculum implementation.

## 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.**

The Topic 6: "Math Background: Coherence" section of the *Grade 6 Teacher's Edition* includes comprehensive unit overviews that provide the background content knowledge necessary to teach the concepts in the unit effectively. The "Look Back" section describes content learned by the student, both in previous lessons and at the prior grade level, by unit and topic.

At the beginning of each unit in the *Grade 6 Teacher's Guide*, a "Topic Planner" includes a comprehensive unit overview with background content knowledge and academic vocabulary necessary to teach the concepts effectively.

The *Grade 6 Teacher's Edition* provides detailed academic vocabulary for each unit. For example, in Topic 6: "Linguistic Accommodations," the section "Topic Vocabulary Support" is broken down into "Topic Vocabulary," "Prior Terms," "Upcoming Terms," "Vocabulary in Context," and "Context-Setting Vocabulary," describing the vocabulary necessary to effectively teach the concepts in the unit/topic.

### **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 6 on Ratio and Rates provides families with Connect the Math to describe the content of a real-world context of a vehicle's gas mileage.

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).**

Materials include comprehensive, structured, detailed lesson plans that include daily objectives, questions, tasks, materials, and instructional assessments aligned with the TEKS and ELPS. For example, in the *Grade 6 Teacher's Edition*, the "1–8 Lesson Plan" is "Divide Mixed Numbers" and lists TEKS, ELPS, mathematics, and language objectives aligned with the concept of dividing rational numbers aligned with TEKS 6.3A and 6.3E. The aligned ELPS is Listening 1C, which states students are expected to respond with accuracy to oral directions. The lesson plan includes a list of materials necessary to successfully implement the lesson. The "Language Routine" has students write a response to a statement, and then share their response with another student. Throughout the lesson plan, multiple questions are listed to check for student understanding. "Try It!," "Do you Understand?," and "Do You know How?" are all evidence of tasks promoting mastery of the content. Step 4 of Lesson Plan 1-8 is titled "Assess and Differentiate," with various resources for student assessments.

### **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.**

In the *Grade 6 Teacher's Edition*, Lesson Plan 2-4, the lesson overview lists student and teacher materials necessary to effectively deliver the lesson.

The "Topic Planner" includes a list of needed lesson materials. The materials list does not clearly identify which materials are teacher items and which are student items.

Materials include suggested timing for each lesson component. In the *Grade 6 Teacher's Edition*, Lesson Plan 2-4, the lesson is broken into four parts with a time frame for implementation of each part. For example, Step 1: "Explore and Share" is allotted 15–20 minutes, and Step 2: "Visual Learning" is allotted 40–45 minutes. In Lesson Plan 5–1, Step 1: "Investigate" is recommended to take 30–35 minutes.

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

Materials include guidance on the effective use of lesson materials for extended practice through the *Differentiation Guide* in the "Differentiation Library." For example, Lesson 1-2, Step 4: "Assess and Differentiate" of the "Differentiation Library" provides guidance for extension practice based on Quick Check results. Guidance for extended practice prompts the teacher on getting started, during the task, and for extra challenge activities.

## 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
—	<b>TOTAL</b>	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 *Grade 6 Assessment Sourcebook* materials include a variety of instructional assessments at the lesson level (including diagnostic, formative, and summative) that vary in types of tasks and questions, including details for the types of assessments to utilize at various points of the topics and lessons. At the beginning of Lesson 1-6, the "Topic Readiness Assessment" is used as a diagnostic assessment; an Exit Ticket 1-6 is used as a formative assessment, which includes a self-assessment; and Quick Check 1-6 is a summative assessment designed to be administered at the end of Lesson 1-6. The assessment consists of question types that include multiple choice, multi-select, and a match table.

Materials include a variety of instructional assessments at the unit level (including diagnostic, formative, and summative) that vary in tasks and questions. In the *Grade 6 Assessment Sourcebook*, each topic has a "Topic Readiness Assessment," "Exit Ticket," "Quick Check," two "Mid-topic Assessments" or "Performance Tasks," a "Topic Assessment," and a "Topic Performance Task". Each assessment ranges in types of questions and tasks, such as ordering values, multiple choice, and fill-in-the-blank questions. Some questions involve multiple steps, requiring students to complete tasks before they reach the solution.

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

Materials in the *Grade 6 Assessment Sourcebook* include the definition and intended purpose for the types of instructional assessments included. A table is provided that describes the three types of assessment (diagnostic, formative, and summative), the reasons for the administration, and the best time to administer each. 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 states that the assessment should be given during a lesson, and provides various types of formative assessments under the areas of "Try It" and "Exit Ticket." The "Exit Ticket" is intended to "assess students' understanding of critical lesson concepts and skills".

In the *Grade 6 Teacher's Edition*, the "Front Matter" "Assessment Resources" page categorizes and identifies diagnostic, formative, or summative assessments and when to administer them.

The "Why and When To Assess" page in the "Assessment Guide Contents" of the *Grade 6 Assessment Sourcebook* summarizes why diagnostic, formative, and summative assessments are given.

### **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 6 Assessment Sourcebook* outlines the purpose of each assessment type and provides directions on monitoring and administering 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. The *Grade 6 Assessment Sourcebook* includes an "Assessment Guide" to assist teachers. It is divided into three sections: "Why and When to Assess," "What to Assess," and "How to Assess." This provides 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 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 6 Assessment Sourcebook*, the "Readiness Test" is utilized as a diagnostic assessment aligned to set the foundation for Grade 6 TEKS, with questions from the fourth and fifth 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 6 Teacher's Edition*, Lesson 3-1 has an objective related to identifying opposites and absolute value, which is TEKS 6.2B. The "Item Analysis" for Quick Check 3-1 provides five questions, all aligned to TEKS 6.2B. This aligns with the unit objectives across the Grade 6 materials in Topic 3: "Integer Operations."

Summative assessments are aligned to the TEKS and objectives of the unit. For example, the *Grade 6 Assessment Sourcebook* includes two forms of assessment for Topic 2 and also two forms of the "Performance Task." Questions within these activities align with the unit objectives.

## **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 6 Assessment Sourcebook*, Quick Check 2-2 is aligned with TEKS 6.2B and has varying levels of complexity, including open response, hot spot on a number line, and a match table.

Two "STAAR Assessment Practice" questions in Lesson 7-2 of the *Grade 6 Teacher's Edition* include TEKS-aligned items at varying levels of complexity. Question one is aligned with 6.4C and is a multi-select question, and question two is aligned with 6.4G and is open-response.

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 6 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 Quick Check instructional assessments in the "Differentiation Library" of the *Grade 6 Teacher's Edition* provide guidance for interpreting student performance to provide targeted supports. For example, in Quick Check 2-2, 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 6 Assessment Sourcebook* "Assessment Data," provide guidance for interpreting student performance through class and individual reports on specific items, whole assessments, and groups of assessments.

Using the "Item Analysis Chart" in the *Grade 6 Assessment Sourcebook*, teachers can see patterns in TEKS and the DOK (Depth of Knowledge) of student performance. Corresponding intervention lessons are provided for each missed item. For example, if a student misses question 1, intervention activities are L71, M13, and M20.

The *Grade 6 Assessment Sourcebook*, "Instructional Outcomes Informed by Assessment Results," provides guidance for interpreting student performance based on 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 *Grade 6 Assessment Sourcebook*, online assessments in the Savvas Realize program automatically provide differentiation tasks to target specific skills toward mastery.

In the *Grade 6 Assessment Sourcebook*, students scoring 0–3 on the Quick Check 2-1 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 6 Assessment Sourcebook*, teachers can see patterns in TEKS and the DOK (Depth of Knowledge) of student performance. 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 *Sixth 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 6 Online Resources*, there are tools for both students and teachers to track progress and growth for each topic, allowing 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 6 Teacher's Edition*, Lesson 3-2, provides guidance for students who "may need to review placement of positive and negative numbers on the number line" 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 6 Teacher's Edition*, Lesson 3-3, provides guidance for teachers to use "Braining Camp," digital manipulatives marked by a specific icon, to support students who have not yet reached proficiency with concrete representations.

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 M37 provides guidance for teachers to support understanding of percents by having students use 10x10 grids.

##### **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 embedded supports for unfamiliar vocabulary and references in text. In the *Grade 6 Teacher's Edition*, Lesson 4-1, there is an embedded support called "Language Support," where teachers are provided guidance to help students understand how dividing in Example 1 is associated with multiplying, further illustrating the concept of exponents.

Another example is 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 8: "Resources" provides students with math situations that students determine as "statistical" and "not statistical."

Materials include pre-teaching supports for vocabulary and references in text. In Topic 2: "Topic Opener—Integers and the Coordinate Plane," the "Math Walk" video introduces students to integers in real-world situations by focusing on low and high elevations.

The "Metalinguistic Transfer to Spanish" section contains more pre-teaching and embedded supports for unfamiliar vocabulary. Here, teachers are informed of transferable and non-transferable skills, such as placing interrogative words at the beginning of a question and providing a list of cognates, such as *exponent* and *exponente*.

### **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 6 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, "Is there another way to solve this problem?" and "What question can you ask yourself to help determine if a number tells how many?"

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 6 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 2-1, teachers are provided guidance to "Extend Student Thinking" with an activity challenging students to choose their own numbers not listed in the lesson, determine their location on the diagram, and then justify their responses.

## 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 6 Teacher's Edition*, Lesson 3-2 includes guided support for the teacher, with questions such as, "How is the addition of integers shown in the example related to the number line represented on the left?" This connects the model to the concept of adding integers.

Another example is in Lesson 7-1, where the teacher is provided with explicit (direct) prompts and guidance for modeling and explaining percents as they relate to wholes. A question for the teacher is to ask students, "If [line] CD represents 10% of the line segment, is 100% of the line segment less than or greater than 4 inches?" This connects a model to the concept of percents as they relate to wholes.

Also, in the *Grade 6 Teacher's Edition*, Lesson 5-12: "Visual Learning," the text includes explicit (direct) prompts and guidance to support the teacher in modeling and explaining the concept(s) to be learned. The text explicitly prompts the teacher what to say to the students when teaching the models in "Example 1," with directions such as, "Although the line in the graph represents all solutions of  $r = 0.45n$ , do all points on this line represent reasonable solutions for this problem situation? Explain." Teacher guidance is offered in responding to both correct and incorrect student work, reinforcing the concept to be learned in the lesson.

### 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 6 Teacher's Edition*, Lesson 3-4: "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 3-2, the "Math Talk" topic is "Problem Solving," with students looking for patterns in number lines representing equations. The "Exit Ticket" provides teachers with guidance on possible student errors, such as forgetting to consider signs.

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 6 Teacher's Edition*, Lesson 3-1 includes teacher guidance on effectively implementing 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 4: "Review What You Know," the materials guide teachers to multiple types of practice, such as having students collaboratively work with a partner to independently write a math question using one of the review vocabulary words, such as *polygon*. 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 6 Teacher's Edition*, Lesson 7-1, teacher guidance includes "Targeted ELPS Support," where teachers are provided tasks and questions to assist students from each level of language proficiency, specifically ELPS 2E. The various levels of language proficiency in this lesson include beginning, intermediate, high intermediate, and advanced. Teacher guidance for students on the beginning level work with a partner to describe "Example 2," and students on the high intermediate level work the problem individually before being asked, "How is the fraction in the top strip diagram related to the percent in the bottom strip diagram?"

In Lesson 5-5, the teacher is given guidance for students working at pre-production, to advanced levels of language proficiency. Teacher guidance for students working at the pre-production level includes the teacher asking students to hold up one of three cards labeled with "equation," "inverse relationship," and "property of equality" to indicate what is shown in an example read aloud, and students working at the intermediate level use the same cards to complete writing with sentence stems.

Another example is found in Topic 2, where students are learning about integers. In "Example 2," students compare and order integers, and the materials provide teacher guidance on how to navigate various levels of language proficiency. For pre-production students, teachers read "Example 2" aloud while students use thumbs up (positive) or thumbs down (negative) throughout the reading, and advanced students read "Example 2" themselves and write a comparison statement connected to the problem.

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

The *Grade 6 Teacher's Edition* includes implementation guidance to support teachers in effectively using the materials in state-approved ESL programs. In Lesson 8-3: "Display Data in Stem-and-Leaf Plots," there is implementation guidance with "Language Support" located in the lesson overview. "Language Support" suggests an activity to support understanding of a stem-and-leaf plot by having students create a drawing comparing flowers and plants to stem-and-leaf plots. There is a detailed description of how to implement the activity within the lesson, along with guidance questions.

Lesson 8-10 encourages the use of the online resource "Build Mathematical Literacy Activity," specifically suggested for emergent bilingual students after completing the Quick Check assessment. The guidance recommends this task for additional practice with academic language.

Another example is found in Lesson 2-1, where the material provides teacher guidance to extend emergent bilingual students' understanding of locating integers on a number line.

### **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 6 Teacher's Edition*, all topics have a "Linguistic Accommodations" section, 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 the usage of abbreviations for ordinal numbers, i.e., 1st/1ro, 2nd/2do, or 3rd/3ro.

Topics include cognates and false cognates for the topic, increasing comprehension, building background knowledge, and making cross-linguistic connections. For instance, in Topic 3, *temperature* correlates with *temperatura*, and false cognates listed reduce confusion between *football* and *futbol* or *contestant* and *contestar*.

Lessons also have "Language Support" activities that include embedded guidance for teachers to support emergent bilingual students before lessons. Before introducing students to the term *integer* in Lesson 2-2, students work with a partner to describe counting numbers and opposites (non-math term), then write the description along with a corresponding example to add to their word bank before sharing their descriptions with other classmates, leading up to understanding the new vocabulary word *integer*. Written and oral discourse occur as students write their descriptions and discuss their thoughts with a partner.

**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.**

Materials provide practice opportunities over the course of a lesson and/or unit (including instructional assessments), requiring students to demonstrate depth of understanding aligned to the TEKS. For example, in the *Grade 6 Teacher's Edition* Lesson 7-2, "Step 3: Practice and Problem-Solving," students demonstrate an understanding of 6.4G by first finding solutions through numeric problems. The next set of problems relates the TEKS to real-world situations requiring students to apply knowledge. Then, problems require students to communicate math ideas by describing an alternate method for solving a problem. The lesson's problems end with students analyzing graphs and models to determine solutions.

Another example is found in the *Grade 6 Teacher's Edition*, Quick Check 2-3, which requires students to demonstrate depth of understanding by assessing various levels of rigor. Questions progress in rigor, beginning with identifying a point on the number line, plotting a rational number on the number line, followed by comparing numbers on a number line, and ordering rational numbers. Finally, students analyze rational numbers from a table.

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

Materials include questions and tasks that progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics TEKS. For example, Lesson 9-8 in the *Grade 6 Teacher's Edition* focuses on TEKS 6.8D: determine the volume of a rectangular prism. Questions and tasks progressively increase in rigor and complexity from concrete models in "Example 1" to representative models requiring students to estimate and explain in Examples 2 and 3.

Questions and tasks found in Lesson 8-3 align with TEKS 6.12A and 6.13A and progressively increase in rigor and complexity, beginning with representing data on the stem-and-leaf plot and progressing to analyzing data from a stem-and-leaf plot. Questions progress from a basic understanding of how data is

represented, i.e., "What do the stems in a stem-and-leaf plot represent?" to analyzing, "How do you find the median distance?"

In another example, Lesson 3-1 begins by relating integers to their opposites and ends with students completing more rigorous questions with verbal representation, such as "You climb up nine flights" with an answer of positive nine and "You spend \$9 on a book" with an answer of negative nine.

## 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
—	<b>TOTAL</b>	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, in *Grade 6 Teacher's Edition* Topics 1–5, students extend operations with fractions and decimals to applications with integers on a number line and coordinate grid. Building on this foundation, students focus on operations with integers and progress to solving algebraic equations.

The "Lesson Overview" for Lesson 5-1 provides another example of coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts. The coherence section of the overview connects the lesson to Topic 4, where students learn how to evaluate algebraic expressions, which is directly connected to Topic 5, where students are introduced to equations. The explicit connections in the lesson overview reinforce the relationship between these concepts and demonstrate how understanding algebraic expressions is necessary for understanding equations.

Topic 2 introduces the concept of graphing integers and their opposites on a number line. Subsequently, in Topic 3, students explore absolute value, defined as the distance from 0. This ties directly into prior content, strengthening student understanding and demonstrating coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts.

### 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 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. For example, the "Math Background: Coherence" sections of the Teacher's Edition connect the content and language with grade 5 content and language and future content and language. Topic 1 demonstrates a direct link to grade 5 decimal operations and previews the upcoming concepts of seventh grade rational number operations.

Materials demonstrate coherence across units by connecting the content learned in previous grade levels. For example, Topic 6 in the *Grade 6 Teacher's Edition* introduces ratios and rates, building upon the foundation of equivalent fractions established in grade 5. The progression repeats throughout the topic and prepares students for the grade 7 concept of the ratio  $\pi$ .

Topic 5 delves into equations and inequalities, connecting to grade 5 content on simplifying expressions. Coherence continues to be demonstrated by connecting the content to what will be learned in grade 7, scaffolding the exploration of proportional and nonproportional relationships. Coherence with the language in these units connects the content from previous grade levels to the current grade level and future grade levels.

#### **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 6 Teacher's Edition*, Lesson 5-4 requires students to write and solve equations with multiplication and division. This demonstrates coherence at the lesson level by connecting to prior knowledge of concepts in Lesson 5-3, where students solved addition and subtraction equations.

Another example of 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 is in Lesson 7-5 on solving percent problems, which links to Lesson 6-2 on ratios, utilizing familiar procedures such as double number lines to find equivalent ratios.

Lesson 1-5 on multiplying fractions begins with a coherence section referencing prior grade 5 learning where students multiplied fractions with and without models. This prior understanding extends as students multiply mixed numbers using those foundational skills. Later lessons build on this by having students divide fractions and mixed numbers, showing a clear progression of mathematical knowledge and skills.

## 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 6 lessons and topics.

In the *Grade 6 Teacher's Edition*, Topic 6: "Review What You Know" provides spaced retrieval opportunities by revisiting equivalent fractions and writing equations. Determining equivalent fractions is a previously learned skill and connects to Topic 1, which includes simplifying fractions after completing operations. Writing equations connects to the previously learned concept in Topic 5, using tables to write and solve equations.

Another example is in Lesson 1-8 on dividing mixed numbers. Earlier in Topic 1, students learned to divide whole numbers by fractions and fractions by fractions. In Lesson 1-8, students recall the previously learned skill and concept in the unit and divide a whole number by a mixed number and vice versa before moving to dividing mixed numbers.

### 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 across learning pathways in grade 6 lessons and topics.

Lesson 8-3: "Practice and Problem Solving," found in the *Grade 6 Teacher's Edition*, demonstrates opportunities for interleaved practice across the lesson by requiring the student to create and interpret stem-and-leaf plots and questions of varying DOK (Depth of Knowledge). Determining the mean, median, mode, and range is revisited throughout the topic; however, the data source fluctuates, challenging the student to use various strategies to determine the solution.

Another example of interleaved practice opportunities with previously learned skills and concepts across units is the "Fluency Practice" in Topic 3, which revisits TEKS 6.3D and 6.3F from Topic 1, multiplying and dividing multiple-digit positive numbers. Topic 3 is integer operations and also covers multiplication and division problems, but with positive and negative numbers.



## 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
—	<b>TOTAL</b>	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 interpret models and representations for mathematical concepts and situations. In the *Grade 6 Teacher's Edition*, Lesson 1-2: "Explore and Share," students are challenged to represent a word problem using 10x10 grids to illustrate adding or multiplying decimals.

Questions require students to analyze and evaluate models for mathematical concepts and situations. In Lesson 1-5: "Try It," the student uses the area model to represent the multiplication of fractions. Teacher-guided questions include "Can you use rows to represent  $\frac{1}{5}$ ? Explain," and "How does this model support your answer?" These questions require students to analyze their model and evaluate their reasoning using the model.

Another example is in each topic with "Let's Model in 3 Acts" lessons, which require students to create, analyze, and evaluate models to represent mathematical concepts and situations. In Lesson 4-6: "The Field Trip," "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 6 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 4-6: "The Field Trip," "Act 1" requires students to 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 1-3, where students are instructed to use a diagram to explain their thinking for the prompt about friends going to lunch and splitting the bill equally, creating a model to represent a mathematical situation. In Lesson 5-5: "Try It," the teacher is provided with guided questions to extend the understanding of the equation, with questions like, "What does the full length of the bar

diagram represent?" and "Into how many sections will the bar diagram be divided?" Students then 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 Lesson 5-7 of the *Grade 6 Teacher's Edition*, the section "Do You Know How" provides the teacher with the question, "On a number line, where would you find all the ages 'a' represents?", providing an opportunity for students to use a diagram to apply conceptual understanding of inequalities.

There is a "Conceptual Understanding" section at the beginning of each lesson. Lesson 3-1 mentions that students extend their understanding of integers and absolute values and relate them to a number line. In the "Investigate" part of the lesson, students are then given tasks for new problem situations.

Tasks provide opportunities for students to apply conceptual understanding to new problem situations. The "Practice and Problem Solving" in Lesson 6-2 prompts students to solve item 17 by drawing a diagram to represent the equivalent ratios. In "Math Talks" for Lesson 2-2, students are provided opportunities to connect a dot plot from a previous lesson to compare rational numbers.

## 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 6 Teacher's Edition*, Topic 3: "Fluency Practice" provides an activity where students practice multiplying and dividing multi-digit whole numbers. This supports automaticity and fluency skills for grade-level topics focusing on evaluating algebraic expressions.

Another example is at the end of each topic, where the materials provide additional fluency practice related to previous grade-level or foundational TEKS. In Topic 2, the grade-level task "Fluency Practice" has students plotting points in quadrant I to build fluency in working with all four quadrants. In Topic 6, the "Fluency Practice" covers adding and subtracting multidigit decimals, which supports the grade-level tasks related to ratios and rates.

The *Grade 6 Differentiation Library* provides tasks 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 4, the "Fluency Practice" task provided contains 17 problems for students to practice adding, subtracting, multiplying, and dividing integers.

### 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 6 Teacher's Edition*, Lesson 5-2: "Talk About Math Ideas," students are provided opportunities to use algebra tiles, a balance, or the standard algorithm to represent and solve problems regarding writing one-variable, one-step equations (TEKS 6.9A).

### 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.

In the *Grade 6 Teacher's Edition*, Lesson 5-3, Example 1 provides students with three different procedures and processes to evaluate the problem: balance, bar diagram, and equation. Within the teacher guidance, there is a "Language Routine" where students pair up and decide which procedure and process to use to evaluate the "Try It" problem, and then describe the process for efficiency, flexibility, and

accuracy. After evaluating their solutions, the partners share with the class, reinforcing efficiency, flexibility, and accuracy.

In Lesson 5-1, students have the opportunity to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy within a lesson by communicating reasoning. "Step 1: Investigate" requires students to communicate reasoning by determining the accurate expression for the problem, along with writing and solving an equation that models the solution to the problem. In this problem, students use a set of criteria to evaluate the scenario presented for efficiency, flexibility, and accuracy, including data in a chart.

In the *Grade 6 Student's Edition*, "Choose a Problem" step of Lesson 4-3, students compare solutions for accuracy and flexibility to solve the problem they selected regarding order of operations. In Lesson 3-5: "Win Some, Lose Some," students are provided an opportunity to flexibly solve integer problems and evaluate approaches for efficiency, flexibility, and accuracy within the lesson.

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

In the *Grade 6 Teacher's Edition*, in Lesson 3-2, students use number lines to determine the sum of integers with the same sign, counters of different signs, and finally, the standard algorithm. The examples create more conceptual understanding before implementing abstract problems, illustrating increasingly efficient approaches. Teacher guidance includes questions like "How is the addition of integers shown in the example related to the number line representation on the left?"

Another example is in Lesson 4-4, when students first use a table to identify patterns as numeric expressions. Then, they are introduced to algebraic terms such as *variables* and *algebraic expressions*. The lesson then transitions into verbal situations where students identify the rule and variables from a sentence instead of a table. Teacher guidance is provided throughout the lesson to make connections leading up to more abstract situations regarding algebraic expressions, with questions like, "How are algebraic expressions like numerical expressions?"

Lesson 7-1 includes embedded supports for teachers to guide students toward increasingly efficient approaches under "Visual Learning." The teacher guides the students with the utilization of strip diagrams, benchmark fractions, and benchmark percents before the learning and practice progress toward the student using mental math and line segments to determine percentages.

## 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
—	<b>TOTAL</b>	11/11

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

The *Grade 6 Teacher's Edition* includes Lesson 2-3, which has a section in the "Lesson Overview" that explicitly states how the lesson will address the TEKS conceptually and procedurally. The "Conceptual Understanding" section states, "Students use their understanding of plotting integers on a number line as they locate rational numbers on the number line and use the visual model to compare and order them." The "Application" section states, "Students apply understanding of rational numbers as they use them to represent real-world situations." These two sections of the "Lesson Overview" correlate with the TEKS and the learning objectives for the lesson.

The "Math Background: Balance" in Topic 3 explicitly states the conceptual need of numbers and their opposites and emphasizes the procedural operations of integers as aligned with TEKS 6.2B and 6.10D.

In Topic 4, the "Mathematical Process Standards" section explicitly states how the conceptual and procedural emphasis of the TEKS are addressed while teaching numeric and algebraic expressions for students to apply mathematics to problems arising in everyday life, society, and the workplace. The guidance explicitly states, "As students solve problems with numeric and algebraic expressions, look for these behaviors to assess and identify students who demonstrate proficiency with these standards," and TEKS 6.1A is the focus of a chart on this page listing various math concepts to be learned during this unit, including writing numeric expressions (conceptual) to represent real-world situations (procedural).

### 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 6 Teacher's Edition*, Lesson 5-3: "Write and Solve Addition and Subtraction Equations," uses concrete models and manipulatives, pictorial representations, and abstract representations in "Example 1." The example presents a word problem, then provides three ways to solve it: the first uses a balance (concrete representation), the second uses a bar diagram (pictorial representation), and the third is a standard algorithm using only numbers and operations (abstract representation).

In Lesson 9-3, the example problem asks the students how to cover a polygon with pattern blocks. A pictorial model of a polygon is presented in this problem, with the task of utilizing manipulatives (pattern blocks) to cover the pictorial model of the polygon, before using the standard algorithm to solve the same problem. This problem contains questions and tasks using concrete manipulatives, pictorial representations, and abstract representations.

In the *Grade 6 Student's Edition*, Lesson 8-2, includes an activity showing an album from a band with a song list organized by genre, pop and R&B, and students describe the relationship between the pop and R&B songs on the album. A bar diagram is also provided for students to determine the relationship between the two genres and draw a representation of the data. This task includes a concrete model, a pictorial representation, and an abstract representation as required by the TEKS.

**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 6 Teacher's Edition*, Lesson 9-4: "Find Areas of Parallelograms including Rhombuses," supports students by connecting concrete and representational models of converting rectangles into parallelograms to the abstract model of finding the area of a parallelogram with the standard algorithm and the formula for area. Students explain the relationships between the concrete/representational models and abstract models in the lesson.

Another example is in Lesson 6-8: "Solve Unit Rate Problems," which supports students in connecting and creating representational models to abstract concepts by starting with a table to determine the unit rate before making a prediction for a missing unit. Next, students use a proportional setup to find a missing unit, an abstract concept, and then they are asked to explain the connection between the representational model and the abstract model.

Additionally, in Lesson 3-5, the game "Win Some, Lose Some," students use manipulatives, create models, and use algorithms to solve rational number problems and explain how the concrete and representational models 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
—	<b>TOTAL</b>	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 6 Teacher's Edition*, Lesson 2-1 gives students a Venn diagram to classify numbers before answering a series of questions to justify their responses. Questions include "What is a characteristic that describes a rational number?" and "How does a Venn diagram show the relationships between the number sets—whole numbers, integers, and rational numbers?" Students use visual representations to make connections between the types of numbers and develop mathematical language.

Lesson 2-1 also uses a "Language Routine" for students to work together to fill in the blanks of sentence frames as an opportunity for developing academic mathematical language. In the activity, students use a Venn diagram to answer classification questions with "always, sometimes, or never" to complete the sentence frame, providing an opportunity for students to analyze Venn diagrams and make connections to the relationship between sets of numbers with this language development strategy.

Additionally, Lesson 3-2 provides students with a manipulative of a number line to discuss and solve adding and subtracting integers, developing academic mathematical language.

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

In the *Grade 6 Teacher's Edition*, Lesson 4-4, students develop the mathematical vocabulary: *algebraic expression*, *term*, *coefficient*, and *variable*. Embedded teacher guidance includes questions that scaffold and support students' development of the terms in context, with questions like, "How is algebraic expressions like numerical expression? How is it different?" Another embedded opportunity is in "Talk About Math Ideas," where students identify the *term*, *coefficient*, and *variable* with a partner, and teacher guidance suggests that teachers listen for usage of the terms from the students as they make conclusions about the problem.

Additionally, in Lesson 4-2, the "Language Routine: Critique, Correct, Clarify" provides teacher guidance to support students' development and use of academic mathematical language through written expression, discourse, and reflection. Teachers present a problem to students to work on, discuss justifications with

partners, and then revise and refine their solutions based on partner feedback, with problems such as: "The prime factorization of 100 is  $2 \times 5 \times 10$ ."

In Lesson 10-6, under "Language Support," the teacher guides student discussion and written expression through the use of sentence stems connected to the topic of different occupations in relation to making an income. One of the sentence stems is "I think it is better to be a \_\_\_\_\_ instead of a \_\_\_\_\_ because \_\_\_\_\_." This teacher guidance provides scaffolding and supports students' development and use of academic mathematical vocabulary in context.

**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.**

In the *Grade 6 Teacher's Edition*, Lesson 2-1 includes teacher guidance to give students Venn diagrams and number lines to represent appropriate mathematical language and vocabulary, such as *whole numbers*, *integers*, and *rational numbers*. Students engage in mathematical conversations about classifying numbers from the beginning of the lessons. Using familiar language to differentiate between numbers and teacher guidance—promoting discourse—is embedded in the materials in places like "Connect Solution Strategies," where students are prompted to discuss the differences between numbers used for counting people and numbers used for measuring people's height. Guidance questions are provided along with example responses shown with the question, "All integers are whole numbers. Is this statement correct? Justify your answer," and an exemplar response is provided stating, "Number -9 is an integer, but not a whole number."

Embedded in Lesson 5-1, in the section "Investigate," Step 1 guides the teacher to use math language in the "Check for Understanding: Language Routine: Collect and Display" task. The teacher is guided to encourage peer discourse with mathematical language related to how they solved the investigation problem. Teachers are guided to listen during this mathematical conversation for vocabulary such as *equation*, *variable*, and *solution* used appropriately (syntax) to support mathematical conversations about equations and solutions.

Students are also provided opportunities to hear, refine, and use math language with peers in Lesson 5-7 in "Talk About Math Ideas" as they speak with a partner about writing inequalities. Exemplars are provided for the lesson for student responses to questions and tasks provided in "Explore and Share."



## 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
—	<b>TOTAL</b>	6/6

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

In the *Grade 6 Teacher's Edition*, the process standards are integrated into multiple tasks and questions, and are identified with a teal-colored font. Lesson 2-3 has a section titled "Explore and Share," and under "Explain Math Ideas," the student explains how representing negative rational numbers on a number line is similar to representing positive rational numbers, integrating with process standard TEKS 6.1D. Process standard TEKS 6.1G is then demonstrated in "Item 28" within the "Practice and Problem Solving Set" when students are given an error analysis problem and asked to justify whether the work is correct or incorrect.

In Topic 10, the TEKS process standards integrated within the lesson are listed on the first page of Lesson 10-1. One process standard included is TEKS 6.1A, "apply mathematics to problems arising in everyday life, society, and the workplace," which is integrated when students solve problems related to comparing bank accounts, an example of everyday life.

Additionally, in the "End Matter," there is a "Correlation to TEKS" page listing every mathematical process standard with the lessons incorporating each process standard. For example, process standard TEKS 6.1A is "apply mathematics to problems arising in everyday life, society, and the workplace," and it is integrated into Lesson 1-5, Lesson 1-9, and Lesson 10-6.

### 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 6 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 can achieve mastery of the list of 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.

Additionally, 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, with process standard TEKS 1B, students 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 6 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 8-2 incorporates process standards TEKS 6.1B, 6.1C, 6.1D, and 6.1E in the lesson, and Lesson 8-4 incorporates process standards TEKS 6.1D, 6.1F, and 6.1G.

Another example is found in the Topic 2 "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 6.1G is incorporated in Lessons 2-1, 2-3, and 2-6. The materials also link TEKS 6.1G to a specific lesson, with page numbers to the question(s) and/or activity.

Additionally, the "Mathematical Process Standards" section in Topic 9 suggests two process standards to focus on throughout the topic, TEKS 6.1G and 6.1F. A table is provided with mathematical objectives incorporated and connected throughout Topic 9 and relates them to the capabilities of a proficient student. For example, under the TEKS 6.1G column, mathematically proficient students can "explain how to find the area of a trapezoid and justify their solution using formulas and equations."

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

In the *Grade 6 Teacher's Edition*, each lesson overview provides the process standards covered within the lesson. In Lesson 9-1, the process standards are TEKS 6.1A, 6.1D, and 6.1F, and these standards are demonstrated in various questions and tasks throughout the lesson. TEKS 6.1F is included in "Example 1" with "Analyze Math Relationships," where the students answer the question, "Where do you see a factor of 3 in these sides?"

Another example is the Quick Check in Lesson 5-11, which indicates process standards 6.1B, 6.1D, and 6.1G as an assessed skill within the lesson.

Additionally, in the "End Matter," the "Correlation to TEKS" lists every mathematical process standard numerically and details which lessons and units contain the standard. For example, TEKS 6.1F is incorporated in lessons and units from Topics 1–10, with a heavier incorporation in Topic 5: "Solve Equations and Inequalities," Topic 6: "Understand and Use Ratio Rate," and Topic 9: "Use Area and Volume."

## 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
—	<b>TOTAL</b>	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 6 Teacher's Edition* Topic 2, Topic Opener: "Integers and the Coordinate Plane," students watch a "Math Talk" video that uses various elevations of places on Earth to relate to the concept of integers. This activity allows students to think mathematically by later referencing the video to compare what they learn about absolute value to the elevations presented 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 6-3, students investigate a real-world situation with a table illustrating the ratio of cars to buses in three school districts, determining the number of buses for 60 cars by choosing the technique to solve the question. A prompt listed in the activity states, "The increase for each district is 60 cars. Does this mean each district should get the same increase for the number of buses? Explain," which requires students to think mathematically and make sense of the math as they persevere through solving problems and work toward a solution.

At the beginning of each lesson in the *Grade 6 Student Edition*, there is an introduction to the lesson that requires students to think and make sense of the mathematics being presented. In Lesson 1-1, in an introduction to place value in whole numbers and decimals, students are given \$600 as a budget to select costume designs at different costs and choose two costumes for the lead actors and eight costumes for the other actors. Students then record their thinking, communicate math ideas, evaluate reasonableness, and connect math ideas.

#### 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 6 Teacher's Edition*, Lesson 7-1, "Try It," students select a problem-solving technique provided in "Example 1" to represent and solve the problem, then explain and justify their answers. The problem-

solving techniques include representation in a 10x10 grid, a double line, a strip diagram, or equivalent fractions. Students understand there are various ways to represent and solve the problem.

Lesson 7-6 tasks students with determining which tests scored a B or higher when given a part of the total. "Question 5" 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 6" 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 11."

In the *Grade 6 Student's Edition*, Lesson 3-1, "STAAR Assessment Practice," students answer questions to relate integers to their opposites and complete an activity where they have to "select all that apply" to the statement, "Opposite of 80." This activity helps students understand that the opposite of 80 can have multiple representations, including: "An airplane descends 80m" or "You remove 80 songs from an MP3 player."

**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 6 Teacher's Edition*, Lesson 3-2, "Explore and Share," students are prompted to process and write about adding integers. The teacher is provided with questions for small- and whole-group conversations.

Lesson 9-2, "Step 2: Visual Learning," provides opportunities for students to collaborate and complete various tasks requiring them to solve problems, determine angle measurements, write explanations about identifying the shortest side of a triangle, and engage in a think-pair-share during the section "Talk About Math Ideas."

In the *Grade 6 Student's Edition*, Lesson 8-7 has a section for students to "Talk About Math Ideas" with their peers to discuss, "How does a measure of center or variability in a data set change if a data value greater or lower than the other values is added to the data set?" 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 6 Teacher's Edition*, Lesson 1-6, the student activity, "Choose a Problem," has 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 centers the discussions around models and reciprocals, for instance, "How can you use a number line to represent the model?"

In Lesson 1-4, 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 2-5, the activity "The Ultimate Throw" supports teachers in guiding students to share and reflect on their problem-solving approaches by asking students to watch a video to determine how far each person threw a disk and who threw their disk farther by 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, "Who threw his or her disc farther? By how much?" 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 6 Teacher's Edition*, Lesson 6-2, the teacher is guided to anticipate student misconceptions regarding writing ratios. If a student has difficulty distinguishing between part-to-part or part-to-whole, the materials suggest teachers ask the following questions: "Will the ratio compare a part to a whole or a part to a part?" and "What comes before \*to\*? Write that number first in the ratio."

In Lesson 6-10 during the "Practice and Problem Solving" activity, teacher guidance provides feedback to students on Item 16. If a student represents 12 feet 8 inches as 12.8 feet, teacher guidance prompts students with the following explanatory questions: "What fraction of a foot is 8 inches?" and "Is two-thirds equal to 0.8?"

Lesson 4-1 materials include guidance on how to prevent misconceptions in the "Exit Ticket" in the event students chose 64 as an answer to the question, "What is the value of the expression  $3^4$ ?" The student may have switched the exponent and the base in their calculations, so the materials suggest pausing and prompting students, "Which number is the base?" and "Which number is the exponent?" and "How many times will the base be used as a factor?" before completing a practice problem.