Curriculum Associates, LLC

Supplemental English Mathematics, 6
Ready Texas Mathematics, Grade 6

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Supplemental	**9781728022321**	**Print**	**Static**

Rating Overview

TEKS SCORE	TEKS BREAKOUTS ATTEMPTED	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	40	2	Flags Not in Report	Not Applicable	0

Quality Rubric Section

RUBRIC SECTION	RAW SCORE	PERCENTAGE
1. Intentional Instructional Design	19 out of 23	83%
2. Progress Monitoring	15 out of 20	75%
3. Supports for All Learners	32 out of 36	89%
4. Depth and Coherence of Key Concepts	16 out of 16	100%
5. Balance of Conceptual and Procedural Understanding	38 out of 38	100%
6. Productive Struggle	21 out of 21	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	0
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	The materials do not include an alignment guide outlining the ELPS covered.	4/5
1.1b	All criteria for guidance met.	3/3
1.1c	The materials do not include diagnostic tests.	1/2
1.1d	All criteria for guidance met.	2/2
1.1e	All criteria for guidance met.	2/2
—	**TOTAL**	12/14

1.1a – Materials include an alignment guide outlining the TEKS, ELPS, and concepts covered, with a rationale for learning paths across grade levels (vertical alignment) and within the same grade level (horizontal alignment) as designed in the materials.

The materials include a *Ready Texas Mathematics Teacher Resource Book* that contains a unit flowchart before each unit and a Texas Essential Knowledge and Skills (TEKS) correlation chart. Both resources outline the TEKS and concepts taught throughout the course for each grade level. The materials do not include the corresponding English Language Proficiency Standards (ELPS). The "TEKS Coverage by Ready Texas Mathematics Instruction" correlation chart includes the TEKS written out in their entirety, the reporting category, and correlating lessons in a table format.

The materials do not explicitly link process standards to lessons in a correlation chart. In the *Ready Texas Mathematics Teacher Resource Book*, each lesson includes "MPS Tip" sections that reinforce the mathematical habits embedded in the process standards. For example, in Unit 1, Lesson 4, one Mathematical Process Standard (MPS) tip gives students opportunities to show the relative locations of fractions, decimals, and percent numbers on a number line. This work supports Standard 6.1.F.

At the beginning of each unit, the materials include unit flowcharts showing how concepts align horizontally and vertically between grade levels. For example, in the *Ready Texas Mathematics Teacher Resource Book,* grade 6, Unit 2: Number and Operations includes a flowchart that shows which lessons students build on from grades 4 and 5. The chart also details the current concepts that Unit 2 covers. Last, the chart details the lessons that students are preparing for in grades 6–7; to show this information, the chart includes arrows showing direct alignment.

1.1b – Materials include an implementation guide with usage recommendations and strategies for effective educator use, such as just-in-time supports, advanced learning, or as a course.

The materials provide implementation guidance in the *Ready Texas Mathematics Teacher Resource Book* for classroom contexts, such as whole-group, small-group, or independent practice settings. The materials include an online Teacher Toolbox with a program implementation link, which includes teaching and learning resources and implementation support. These resources include discourse cards, grade-level games, digital math tools, and manipulatives lists. Each lesson provides implementation steps for teachers that suggest which classroom context to use (working individually, in small groups, or as a whole class).

The materials provide recommendations for differentiating instruction for various student needs. Each lesson ends with a "Differentiated Instruction" page. Several lessons include an "Assessment and Remediation" section on this page, which poses a question or situation to students. A chart follows this section, which explains potential errors and gives the teacher tips for remediation and further lessons. "Hands-on" activities in each lesson allow students to learn using concrete models, manipulatives, or objects. "Challenge" activities are for students who master the content early. The materials also provide resources in each lesson for teachers to support English Language Learner (ELL) students and enrichment tasks. The "Concept Extension" box gives the teacher suggestions on extending learning for more proficient learners.

The *Ready Texas Mathematics Teacher Resource Book* includes usage guidance for various instructional formats, such as intervention, enrichment, extension, or as a course. The *Ready Texas Mathematics Teacher Resource Book* also includes two options for weekly pacing guides: one lesson or two lessons per week.

1.1c – Materials include a TEKS correlation guide with recommended skill entry points based on diagnostic assessment results.

Each unit lesson provides connections to the TEKS. The *Ready Texas Mathematics* front matter also includes a "TEKS Coverage by Ready Texas Mathematics Instruction" correlation chart.

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

The *Ready Texas Mathematics Teacher Resource Book* includes processes for educators to thoroughly understand and prepare to teach a concept. Preparation includes: previewing the unit to understand key standards, unit objectives, vocabulary, and assessments; understanding the sequence of learning in the context of the learning progression; considering the diverse needs of students and finding places within

the unit for differentiation and scaffolding strategies; and preparing for instruction by gathering the materials and tools necessary for lesson delivery.

The materials include a page at the beginning of each lesson that gives the teacher an overview of the objectives, prerequisite skills, essential academic vocabulary, and learning progression based on current skills. This page also includes the TEKS addressed in the lesson and whether the standard relates to readiness or support.

The *Ready Texas Mathematics Teacher Resource Book* includes sections for educators considering students' diverse needs. These sections support educators in differentiating and reviewing formative assessments. Each lesson covers formative assessments in the "Solutions and Explanations with Error Alerts" and "Assessment and Remediation" sections. Lessons include detailed steps, strategies, and prepared questions for teachers. For example, Unit 3, Lesson 18 includes an ELL activity about making linguistic connections with math vocabulary.

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

The online Teacher Toolbox includes a "Program Implementation" section, which contains resources such as manipulative lists, documents to help teachers and instructional leaders set up for the year or by unit, and a guide on implementing learning centers. The materials include academic language glossaries and correlations for digital resources, comprehension checks, and cumulative practice. The *Program Resources User Guide* lists student and teacher resources, explaining whether they are available online, in print, and/or in Spanish.

The implementation guide for the online Teacher Toolbox offers instructional leaders guidance for effectively implementing the program, such as outlining the program's structure, addressing potential challenges, explaining instructional strategies, and providing pacing recommendations. The materials provide a "Program Overview" document in both English and Spanish. This document includes guidance for the program's overall vision and mission as well as its organization. The document also provides an overview on implementing hands-on learning, building number sense, and offering powerful instructional frameworks that support ELLs.

The Teacher Toolbox homepage includes a "Success Central" option. This option provides information related to several topics, including "Plan and Teach," "Assess and Use Data," and "Professional Growth." The *Unpacking a Unit CLE (Collaborative Learning Extension) Guide* can facilitate meetings when beginning a new unit to discuss learning goals, prerequisite skills, and upcoming learning connected to the unit. The "Learning Walks for Teachers CLE" document gives step-by-step instructions for instructional leaders to thoroughly plan for, implement, and reflect on learning walks through teachers' classrooms.

1.2 Lesson-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.2a	The materials do not align with the ELPS.	5/7
1.2b	This guidance is not applicable to the program.	N/A
1.2c	All criteria for guidance met.	2/2
—	**TOTAL**	7/9

1.2a – If designed to be static, materials include detailed lesson plans with learning objectives, teacher and student materials, lesson components with suggested timeframes, and assessment resources aligned with the TEKS and ELPS.

The *Ready Texas Mathematics Teacher Resource Book* contains a "Lesson Overview" page for each lesson that details the learning progression, standards alignments for mathematical practice, and content and language objectives. This page also includes suggested pacing (including times in minutes) for parts of each lesson.

The lesson materials in the *Ready Texas Mathematics Teacher Resource Book* and the online Teacher Toolbox provide ideas for concrete and representational activities, hands-on learning opportunities, differentiations, reteaching opportunities, language supports, and enrichment activities. These educator supports are easily identifiable by shaded boxes that make them stand out. Student materials correspond to the lesson components in the *Ready Texas Mathematics Teacher Resource Book* and allow students space for reflection, exploration, practice, and enrichment.

The Teacher Toolbox contains classroom resources organized by lesson, including sections for instruction and practice, interactive tutorials, assessments, instructional tools, and enrichment. All lessons can be tied back to the TEKS using the correlation guide. Assessments do not explicitly state the TEKS, but align with each lesson's TEKS. Assessment resources do not align with the ELPS.

1.2b – If designed to be adaptive, materials include detailed lesson overviews with learning objectives, lesson components with suggested timeframes, and assessment resources aligned with the TEKS and ELPS.

This guidance is not applicable because the program is not designed to be adaptive.

1.2c – Materials contain support for families in Spanish and English for each unit, with suggestions on supporting the progress of their student(s).

The "English Language" section of the *Ready Texas Mathematics Teacher Resource Book* contains family letters in multiple languages, including Spanish. Each letter introduces the current lesson's skills and

vocabulary, explains two ways to use the skills, and contains visuals and a conversation starter (paired with an activity).

The Teacher Toolbox includes an email template for teachers and/or instructional leaders to share with families. This template helps families understand the materials. It contains questions and answers about the materials, questions for parents to ask about homework, and questions for parents to ask children if they are stuck on a question. An introductory email introduces each lesson's family letter.

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.	2/2
2.1b	All criteria for guidance met.	2/2
2.1c	This is a static program. The materials do not include printable or digital versions. The materials do not include accommodations, such as text-to-speech, content and language supports, or calculators that can be enabled or disabled for individual students.	Not Scored
2.1d	The materials do not include diagnostic assessments.	0/4
2.1e	All criteria for guidance met.	4/4
—	**TOTAL**	8/12

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

The "Supporting Research" section of the *Ready Texas Mathematics Teacher Resource Book*'s front matter defines formative assessment, or progress monitoring, opportunities. This information is also available in the "Solutions and Explanations with Error Alerts" section as well as each lesson's "Assessment and Remediation" sections. These sections cite research on the purposes of formative assessments, stating the following: "Teachers' regular use of formative assessment improves their students' learning, especially if they have additional guidance on using the assessment to design and to individualize instruction."

Each lesson includes "TEKS Practice" problems in various assessment formats. Each unit also includes "Unit Practice" pages. The *Ready Texas Mathematics Teacher Resource Book* provides sample solutions for all questions with Depth of Knowledge (DOK) levels for each different response. The book also includes a rubric for these questions. The materials offer answer explanations for students, helping teachers give immediate feedback—an essential part of scaffolded instruction.

Individual lessons guide formative assessments. Each lesson's materials incorporate the formative assessment's intended purpose. The materials do not include diagnostic and summative assessments.

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

Each lesson includes "TEKS Practice" problems in various assessment formats. The *Ready Texas Mathematics Teacher Resource Book* provides sample solutions with DOK levels for each response. The

book also includes a rubric to support teachers in consistently and accurately assessing student performance.

The "Unit Practice" section after each unit includes a scoring guide and answer analysis for each review question. The "Unit Practice Correlation" chart in the *Ready Texas Mathematics* front matter lists the assessed TEKS and DOK level next to each question.

2.1c – Digital assessments include printable versions and accommodations, including text-to-speech, content and language supports, and calculators, that educators can enable or disable to support individual students.

The materials do not include assessments at the end of each unit, which are only in the *Student Instructional Book*. The lessons include TEKS practice and performance tasks that allow students to demonstrate mastery of the materials covered in lessons. The materials do not include digital assessments, printable versions or accommodations, such as text-to-speech, content and language supports, or calculators that can be enabled or disabled for individual students.

2.1d – Materials include diagnostic assessments with TEKS-aligned tasks or questions, including interactive item types with varying complexity levels.

The materials do not meet the criteria for diagnostic assessments with TEKS-aligned tasks or questions. The materials include TEKS practice assessments with different item types and varying DOK levels. However, these assessments do not include interactive or adaptive components. The product is static and does not contain printed or online diagnostic assessments.

2.1e – Materials include a variety of formative assessments with TEKS-aligned tasks or questions, including interactive item types with varying complexity levels.

The "Guided Practice" section of each lesson requires students to work independently while the teacher monitors and assesses their work. For instance, in Unit 2, Lesson 8, the *Ready Texas Mathematics Teacher Resource Book* guides the teacher on what constitutes correct solutions and explanations for the lesson's three problems. The book details the DOK level for each problem.

The "TEKS Practice" pages in Unit 2, Lesson 8 include five assessment questions that include multiple-choice, multi-select, multiple-step, open response/text entry, and number line questions. These questions cover three DOK levels. The materials are static; however, they include interactive item types that require students to engage with content beyond traditional multiple-choice formats.

The materials include multipart performance tasks that allow students to show their learning of lesson concepts. These performance tasks have an assigned DOK level. They also include rubrics to guide teachers in assessing and scoring student understanding. For example, Lesson 7 includes a performance

task at DOK Level 3 that consists of four parts. The materials give teachers a rubric as guidance for each part of the task.

2.2 Data Analysis and Progress Monitoring

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.2a	All criteria for guidance met.	3/3
2.2b	All criteria for guidance met.	1/1
2.2c	The materials do not include tools for teachers to track student progress and growth.	1/2
2.2d	All criteria for guidance met.	2/2
2.2e	This guidance is not applicable to the program.	N/A
—	**TOTAL**	7/8

2.2a – Instructional assessments include scoring information and guidance for interpreting student performance, including rationale for each correct and incorrect response.

The *Ready Texas Mathematics Teacher Resource Book* provides many opportunities for students to demonstrate their understanding of lesson content, including "Guided Practice," "TEKS Practice," "Performance Tasks," and "Unit Practice" sections. The "Guided Practice" sections throughout lessons contain scoring information and guidance, including multiple-choice questions and rationales for correct and incorrect answers.

The materials include "Guided Practice" open-ended questions. The "Solutions" section of this practice explains correct answers. For example, in the "Guided Practice" section for Unit 2, Lesson 8, students analyze the answer choice of a fictional student. The materials guide the teacher to lead students through the rationales for correct and incorrect answer choices. The materials provide multistep "Performance Tasks" among lessons to offer another form of assessment. These tasks include an adjoining rubric for each performance task section, which guides the teacher in objectively determining a student's overall performance. Rubrics include explanations for each point value for each problem. For example, the materials break the "Performance Task" in Lesson 10 into four parts, and the *Ready Texas Mathematics Teacher Resource Book* includes a rubric for each section to assess the student's performance.

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

The *Ready Texas Mathematics Teacher Resource Book* provides guidance for the use of multiple tasks and activities in response to students' assessed needs. Each lesson concludes with activities that challenge students who have mastered skills, activities that reteach concepts and skills for students who need extra practice, and problems that offer on-level students the opportunity to apply and extend their knowledge to new situations. For example, at the end of Lesson 9's "Differentiated Instruction" page, students

complete a division problem. The page includes a table that provides the teacher with error analysis information and guidance based on student mistakes.

The supplemental lesson resources in the Teacher Toolbox provide teachers with at least one task for each lesson. The "Student-Led Activities" pages differentiate these tasks for on-level, below-level, and above-level students. For instance, in Lesson 2, the "Integer Multiplication" board game differentiates cognitive demand by changing the number of cards and the locations of unknown values.

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

The *Ready Texas Mathematics Teacher Resource Book* offers many opportunities to assess student learning. For example, the materials provide a unit self-check for students to track their progress on each unit's content.

The materials do not include a tool for teachers to track student progress.

2.2d – If designed to be static, materials provide prompts and guidance to support educators in conducting frequent checks for understanding at key points throughout each lesson or activity.

The *Ready Texas Mathematics Teacher Resource Book* includes guidance throughout lessons, including "Step by Step," "Mathematical Discourse," "Hands-On Activity," and "Student Misconception Alert" sections. These sections provide specific and frequent prompts to check student understanding. The materials give educators questions and instructions for students along the learning pathway. For example, in grade 6, Unit 3, Lesson 19's "Introduction" section, the "Step by Step" section prompts the educator to "lead students to represent the picture with an equation of 5 + 5 = 10." The section then prompts educators to "guide students to recognize that 2 oz plus the unknown . . . on the left" must equal the total number of ounces on the other side of the balance.

The Teacher Toolbox includes a "Tools for Instruction" section, which includes a document that helps teachers check their understanding of the lesson's prerequisite material. For example, the Teacher Toolbox for Lesson 14: Add and Subtract Positive and Negative Integers includes a "Tools for Instruction" document, which guides the teacher through activities to ensure students understand positive and negative numbers. The materials provide a task to check for understanding at the end of the activities. This task includes guidance on presenting a scenario and details the structures that teachers should give students (e.g., a number line). The task also includes information on what questions teachers should pose to students. An error analysis table guides teachers with the following information: "For the student who struggles, use the chart below to help pinpoint where extra help may be needed."

2.2e – If designed to be adaptive, materials provide frequent checks for understanding at key points throughout each lesson or activity.

This guidance is not applicable because the program is not designed to be adaptive.

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	SCORE SUMMARY	RAW SCORE
3.1a	All criteria for guidance met.	1/1
3.1b	All criteria for guidance met.	4/4
3.1c	All criteria for guidance met.	2/2
3.1d	This program is static and do not include digital accommodations, such as text-to-speech, content and language supports, and calculators that educators can enable or disable to support individual students.	Not Scored
3.1e	All criteria for guidance met.	2/2
—	**TOTAL**	9/9

3.1a – Materials include explicit educator guidance for lessons or activities scaffolded for students who have not yet reached proficiency in prerequisite or grade-level concepts and skills.

Lessons in the *Ready Texas Mathematics Teacher Resource Book* include scaffolding and prerequisite review information to support teachers in meeting the needs of students at every level of understanding. For example, the "Introduction" section of grade 6, Unit 2, Lesson 6 reviews how division and fractions relate. A model illustrates a problem situation that will yield a quotient of less than one, while the "Step by Step" section prompts the teacher with questions throughout the process. The "Explore It" section is a whole-class activity that breaks down the model and problem with further questioning. An MPS tip addresses student difficulties with dividing a smaller number by a larger number. The materials direct teachers to use "hands-on activities, visual models, and equations" to help students build their understanding of concepts.

The Teacher Toolbox resources include differentiated student-led activities. For example, Unit 2, Lesson 9, which covers decimal multiplication and division, includes two different activities. Each activity includes on-, above-, and below-grade-level versions. These versions differentiate the amount of scaffolding or extension that students need.

The Teacher Toolbox includes supplemental resources for each lesson called "Tools for Instruction." These resources support students requiring additional help within a lesson or with prerequisite skills. For example, Lesson 11: Absolute Value and Ordering Numbers includes three documents. These documents provide guidance and support for the teacher to help students struggling with below-grade-level skills. The documents also help those needing additional support within the grade-level lesson. One of these documents supports the prerequisite skill of comparing decimals to the thousandths. The other two

documents break down the skills from the lesson into "Understanding and Applying Absolute Value" and "Comparing Positive and Negative Rational Numbers."

3.1b – Materials include explicit educator guidance for language supports, including pre-teaching and embedded supports for developing academic vocabulary and unfamiliar references in text.

The *Ready Texas Mathematics Teacher Resource Book* for grade 6 includes lesson objectives, prerequisite skills, essential academic vocabulary for the upcoming lesson, and definitions for all words. For example, Lesson 5 defines the vocabulary word *percent* as a rate "for every 100" or "per 100." The teacher's "Step by Step" prompts guide students to understanding that *percent* refers to a ratio of 100 to the second number.

The *Ready Texas Mathematics Teacher Resource Book* for grade 6 has at least one ELL support tip in each lesson, which offers explicit educator guidance for language support. The "Introduction" section of Lesson 18 includes pre-teaching support for teaching properties of operations vocabulary, such as *commutative property*. The "ELL Support" section suggests connecting the word *commutative* with the word *commuting*.

The grade 6 lessons in the *Ready Texas Mathematics Teacher Resource Book* include embedded guidance for language support as needed. For example, in Unit 3, Lesson 18, the "Step by Step" section in the "Guided Practice" resource directs the educator to "review the definition of *like terms*" again for that part of the lesson. Lesson 3 also includes embedded support for unfamiliar vocabulary. For example, the "ELL Support" section helps students understand what *pinch* means in the context of a problem about feeding a fish.

3.1c – Materials include explicit educator guidance for enrichment and extension activities for students who have demonstrated proficiency in grade-level and above grade-level content and skills.

The grade 6 *Ready Texas Mathematics Teacher Resource Book* offers "Challenge" activities at the end of lessons for students who have mastered content. For example, Lesson 5: Solve Problems with Percent includes a "Challenge" activity that requires students to write and solve a problem in which a percent and a part are known, but the total is not. Students discuss what makes these problems harder than other percent problems. Students then trade and solve with classmates.

Enrichment activities align with each lesson in the Teacher Toolbox. For example, Lesson 2: Represent Ratios and Rates includes an enrichment activity called "Draw a Line Through It." The activity includes a teacher copy and a student copy.

Each lesson's "Modeled Instruction" section includes "Concept Extension" guidance, which gives teachers ideas on extending their thinking about an explored concept. For example, in Unit 4, Lesson 24, the

extension activity covers the grade 7 skill of converting between measurement systems. This activity guides teachers through questioning for two different problems.

3.1d – Digital materials include accommodations, including text-to-speech, content and language supports, and calculators that educators can enable or disable to support individual students.

The materials include the online Teacher Toolbox, a digital component for teachers. In this digital space, teachers can access various resources, including the *Teacher Resource Guide,* Teacher Toolbox, small-group intervention documents, and digital student pages. However, the materials do not include digital components that offer accommodations (such as text-to-speech support, content and language supports, and calculators) that educators can enable or disable to support individual students.

3.1e – Materials include educator guidance on offering options and supports for students to demonstrate understanding of mathematical concepts in various ways, such as perform, express, and represent.

The grade 6 materials provide various options for students to show their understanding of concepts during each lesson. These opportunities include, but are not limited to, different interactive-type questions embedded in "TEKS Practice" and "Unit Practice" pages as well as "Performance Tasks" and "Assessment and Remediation" sections. Lesson 16 of the *Ready Texas Mathematics Teacher Resource Book* requires students to express how much money they would make after four days, multiply exponents, and represent the data using a table.

The materials provide educators with suggested activities throughout lessons for multiple problem-solving methods. For example, in grade 6, Unit 3, Lesson 17 (on algebraic expressions and equations), the "Visual Model" problem guides the educator in supporting students to use algebra tiles to represent given expressions. The "Real-World Connection" problem guides the educator to require students to devise their own real-world problem for a given expression.

The *Ready Texas Mathematics Teacher Resource Book* provides educators with a rubric and instructions in the "Step by Step" section of the "Performance Tasks." These resources appear at the end of several lessons. The front matter describes the tasks as open-ended "critical thinking problem(s) that integrate multiple standards." For example, in grade 6, Unit 3, Lesson 21, one performance task addresses understanding solutions to an equation. The materials ask students to draw a model, offer students a verbal description, and direct them through the steps to balance an equation using a model each time. The materials ask students for an explanation in words.

3.2 Instructional Methods

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.2a	All criteria for guidance met.	5/5
3.2b	All criteria for guidance met.	2/2
3.2c	All criteria for guidance met.	3/3
3.2d	All criteria for guidance met.	2/2
3.2e	All criteria for guidance met.	2/2
—	**TOTAL**	14/14

3.2a – Materials include explicit (direct) prompts and guidance for educators to build knowledge by activating prior knowledge, anchoring big ideas, and highlighting and connecting key patterns, features, and relationships through multiple means of representation.

The *Ready Texas Mathematics Teacher Resource Book* provides prompts and guidance designed to help educators activate what students already know about a topic before introducing new information. Explicit prompts and guidance appear throughout each grade 6 lesson in the "Step by Step" sections. For example, in Lesson 3, before students learn about the lesson's theme ("Making Predictions and Comparisons Using Ratios"), students explore equivalent ratios. The materials guide teachers to prompt students to use and compare the key patterns they see in the models. Later in the lesson, the "Step by Step" sections guide teachers to model using multiplication and division in order to find equivalent ratios.

Lessons anchor big ideas by including questions that the educator can use to elicit students' critical thinking. For example, in Unit 3, Lesson 20, the "Step by Step" section in "Guided Instruction" includes an example of activating prior knowledge by guiding the educator to do the following: "Ask students if they remember the two things that need to be done to solve an equation." Questions in the "Mathematical Discourse" and "Real-World Connection" sections anchor big ideas. One of those questions asks the following: "You know that an equation shows two expressions are equivalent. How do you think this relates to the pan balance in this problem?"

The materials include explicit prompts and guidance for educators to highlight and connect key patterns, features, and relationships. For example, Unit 3, Lesson 23 connects key patterns by guiding the educator to do the following: "Remind students that each number pair in the table uses the same role and the same operation." Teachers also "ask for student volunteers to give their explanations of how the patterns are different." The "Step by Step" and "Introduction" sections emphasize key features, prompting the educator to "ask students to explain how to graph each relationship" and "discuss with students the differences between the two graphs."

3.2b – If designed to be static, materials include educator guidance for effective lesson delivery and facilitation using various instructional approaches.

Grade 6 lesson plans in the *Ready Texas Mathematics Teacher Resource Book* include guidance for several instructional routines and supplementary resources, as well as guidance on when and how to use these resources for differentiated instruction. For example, in Lesson 8, the *Ready Texas Mathematics Instruction Pacing Guid*e suggests that the lesson should take five days (35–45 minutes daily). The lesson guides teachers through the "Step by Step" sections to use "Visual Models," "Mathematical Discourse," "Real-World Connections," "Hands-on Activities," "Try-It," and "TEKS Practice" with students. The materials provide differentiation strategies through each lesson's "ELL Support," "Differentiated Instruction," "Hands-On," and "Challenge" activities.

"Mathematical Discourse" sections, which appear within "Think-Share-Compare" routines and "Real-World Connection" activities, include opportunities for students to collaborate and share their mathematical thinking. For example, in Unit 4, Lesson 24, one of the "Mathematical Discourse" sections asks students to think about and then discuss the efficiency of using a model or picture to convert units of measurement. The "Challenge" activity requires students to use a scale on a map to find distance in miles and then convert the distance to feet and yards.

The materials include explicit guidance for educators and opportunities for students to use a variety of instructional approaches. Lessons include whole-group instruction, small-group activities, individual differentiation, and partner collaboration. The Teacher Toolbox includes multiple center activities for most lessons that allow students to work at their level in small groups to complete tasks.

3.2c – Materials include multi-tiered intervention methods for various types of practice and structures and educator guidance to support effective implementation.

The materials provide multi-tiered interventions with step-by-step teacher guidance, which support students through various practice models. For example, in the Teacher Toolbox, students receive targeted support through "Teacher-Led" activities (whole or small group), "Student-Led" activities (in which students can collaborate with peers to solve a problem), and "Enrich" activities (in which students can work individually or in small groups).

The *Ready Texas Mathematics Teacher Resource Book* includes performance tasks and formative assessments, which provide error analysis guidance for the teacher and suggest activities or lessons for students who make errors. Error analysis tables and rubrics guide the teacher to the appropriate action based on each student's level of need. These tables and rubrics also provide leveled activities for each group of students. For example, Lesson 7 presents students with a three-part performance task. Each part includes a scoring rubric. The rubric's wording supports the teacher's understanding of where the student may need additional assistance. The page following this task includes an "Intervention Activity,"

an "On-Level Activity," and a "Challenge Activity." These activities support students' learning from the lesson in response to the performance task.

The materials include several consistent routines in each lesson. These routines offer teachers guidance to check for students' knowledge levels as well as ideas for differentiating instruction. For example, in grade 6, Lesson 6, the "Assessment and Remediation" section guides the educator to ask students to write and solve an equation. The materials include a chart with advice for students who are struggling. After this review, the educator offers another problem to check students' understanding again. To help students who continue to struggle, the materials refer to a grade 4 lesson to reinforce the underlying conceptual knowledge that students require for the skill.

3.2d – Materials include enrichment and extension methods that support various forms of engagement, and guidance to support educators in effective implementation.

The materials include enrichment and extension activities to support student engagement at various parts of the lessons. These activities also offer guidance to support educators in practical implementation. For instance, many lessons in the *Ready Texas Mathematics Teacher Resource Book* include a "Concept Extension" section in the "Modeled Instruction" component to extend students' thinking about the lesson's central concept. In Lesson 16, the "Concept Extension" guides students to use prime factorization to find the greatest common factor and least common multiple. In Lesson 19, the "Concept Extension" guides students to use mental math or write expressions to gain a deeper understanding of solving equations.

The lessons include enrichment activities within the Teacher Toolbox. The materials provide answer keys for these activities as well as guidance for teachers and students on completing them. For example, grade 6, Lesson 5: Solve Problems with Percents includes an enrichment activity in which students design a tessellated wallpaper pattern to match specific parameters. A percentage of students' designs must meet specific requirements.

Grade 6 lessons in the *Ready Texas Mathematics Teacher Resource Book* include a "Challenge" activity at the end of each lesson. This activity helps students extend and enrich their understanding. Lesson 22 challenges students to use verbal descriptions and information in a table to solve equations in the context of fundraising. Lesson 27's "Challenge" activity includes rectangular prism volume problems, which involve filling different-sized swimming pools with water from two different-sized trucks. The materials include educator guidance on these tasks, as well as student instructions and questions.

3.2e – Materials include prompts and guidance to support educators in providing timely feedback during lesson delivery.

Grade 6 lesson materials include prompts and guidance to support educators in providing timely feedback across all parts of lesson delivery. In Lesson 20, during "Modeled Instruction," the "Step by Step" instructions guide teachers to ask the following questions: "How do you know that 52 + s is equal to 180?

Would 38 degrees make sense?" Next, in "Guided Instruction," the "Step by Step" instructions guide the teacher to ask students if they remember the two things they must do to solve an equation. Students then complete the "Try It" task. This task includes an "Error Alert," which explains to educators how students may get the wrong answer and how to support them.

Lessons embed formative assessment questions as well as guidance on how teachers can use students' responses to provide timely feedback. For example, after a question or problem-solving activity, the *Ready Texas Mathematics Teacher Resource Book* suggests that teachers ask students to explain their reasoning, provide feedback on students' approaches, and clarify any misconceptions. Then, the "Error Analysis" section guides teachers on performance tasks, end-of-lesson assessments, and remediation activities. Error analysis tables guide teachers on supporting students, including guidance on providing meaningful and timely feedback.

Lesson materials guide and support educators in the "Step by Step" sections of the lessons. For example, in grade 6, Unit 4, Lesson 25, the "Step by Step" section of the "Guided Instruction" component gives educators the following guidance for reviewing the "Explore It" questions: "You may choose to work through the first problem together as a class. You may also share results after each question before moving to the next question. This can provide struggling students with a model of how to think about the questions." The lesson materials then state the following: "If students have difficulty reaching a correct conclusion, refer to the Student Misconception Alert and see if it applies to their situation."

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	The materials do not include educator guidance on providing and incorporating linguistic accommodations for all levels of language proficiency [as defined by the English Language Proficiency Standards (ELPS)], which are designed to engage students in using increasingly more academic language; the materials only include guidance for one level of academic language support.	1/4
3.3b	This guidance is not applicable to the program.	N/A
3.3c	The materials do not address or align with state-approved bilingual/ESL program models, such as dual language immersion or ESL pull-out programs.	0/1
3.3d	All criteria for guidance met.	8/8
3.3e	This guidance is not applicable to the program.	N/A
—	**TOTAL**	9/13

3.3a – If designed to be static, materials include educator guidance on providing and incorporating linguistic accommodations for all levels of language proficiency [as defined by the English Language Proficiency Standards (ELPS)], which are designed to engage students in using increasingly more academic language.

The grade 6 *Ready Texas Mathematics Teacher Resource Book* includes educator guidance on providing and incorporating linguistic accommodations for at least one level of language proficiency (advanced). The front matter explains where to find ELL supports in hands-on activities, visual models, concept extensions, and academic discourse activities across all lessons.

The grade 6 materials include generalized tips for ELLs and do not address multiple levels of language proficiency. While the materials offer helpful guidance, the provided supports are not vocabulary-focused or helpful to students at varying levels of independence. While the materials include hands-on activities, visual models, and discourse opportunities, the *Ready Texas Mathematics Teacher Resource Book* does not offer guidance for teachers to specifically support ELLs at the beginning or intermediate levels (students with no understanding of English academic language, or those with only limited understanding of high-frequency words).

Sections throughout the lessons include strategies for ELLs who can understand English with some second language acquisition support. These include "ELL Support," "Visual Model," and "Hands-on Activity" sections. For example, in grade 6, Unit 2, Lesson 10, an "ELL Support" section begins with the educator writing the word *opposite* on the board. A class discussion begins with real-life opposites, such as *good* and *bad*. The materials also include a "Visual Model" section, which requires teachers to draw a large number line across the board. After walking up to the board, each student stands by a number and its opposite. Some lessons have two "ELL Support" boxes. For example, Lesson 20 provides guidance for *pan balance* and *isolate*. The lesson offers a hands-on activity to familiarize students with a pan balance, including how they can balance or unbalance it.

3.3b – If designed to be adaptive, materials include embedded linguistic accommodations for all 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.

This guidance is not applicable to the program because it is not designed to be adaptive.

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

The materials do not address or align with state-approved bilingual or ESL program models, such as dual language immersion or ESL pull-out programs.

3.3d – Materials include embedded guidance to support emergent bilingual students in developing academic vocabulary, increasing comprehension, building background knowledge, and making cross-linguistic connections through oral and written discourse.

The *Ready Texas Mathematics Teacher Resource Book* provides many opportunities for students to discuss their mathematical thinking. The book also includes guidance for the teacher on facilitating such discussions to improve student comprehension and build student background knowledge. For example, the introduction to grade 6, Lesson 8 includes a prompt that asks students to estimate using *greater/less than*. The prompt uses a diagram to review the meaning of mathematical vocabulary, then includes mathematical discourse guidance to discuss the purpose of models and how they can help students solve the problem. In the same section of the lesson, students can explain their thinking in writing.

Each lesson includes embedded guidance for teachers to support ELLs and increase student comprehension through oral and written discourse opportunities. For example, the introduction to grade 6, Unit 3, Lesson 18 includes several written questions in the "Explore It" section and several teacher prompts in the "Step by Step" section. These questions and prompts improve students' comprehension of math properties and the new vocabulary words associated with these properties. The "Mathematical Discourse" section in the "Modeled Instruction" component extends students' thinking through a "Think-

Share-Compare" activity. Each lesson incorporates written explanations and justifications in the "Guided Instruction" and "TEKS Practice" sections.

The grade 6 materials offer oral and written discourse opportunities for cross-linguistic connections with ELLs. For example, several lessons include an "ELL Support" callout box that describes supporting multilingualism by using proficient speakers to help ELLs. Each lesson's "ELL Support" section demonstrates using cognates and other language connections to support ELLs.

3.3e – 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.	4/4
—	**TOTAL**	6/6

4.1a – Practice opportunities throughout learning pathways (including instructional assessments) require students to demonstrate depth of understanding aligned to the TEKS.

Each lesson's "TEKS Practice" section includes several questions in various assessment formats. The *Ready Texas Mathematics Teacher Resource Book* provides sample solutions, DOK levels for each response, and a rubric. These questions correlate to both the TEKS and DOK levels.

The "Unit Practice" section after each unit includes a scoring guide and answer analysis for each review question. The "Unit Practice Correlation Chart" in the front matter of the *Ready Texas Mathematics Teacher Resource Book* lists the TEKS and DOK levels that each question assesses.

Each lesson in the *Ready Texas Mathematics Teacher Resource Book* includes a variety of tasks and questions for guided and independent practice with varying levels of DOK. This practice ranges from recall to extended thinking. The "Solutions" section lists the DOK level of each question. In Unit 3, Lesson 16, students solve straightforward problems involving prime factorization. Students then build on this skill to solve multistep problems involving equivalent expressions. Students analyze and compare solutions to problems with one another.

4.1b – Questions and tasks, including enrichment and extension materials, increase in rigor and complexity, leading to grade-level and above grade-level proficiency in the mathematics TEKS.

Lesson structure in the *Ready Texas Mathematics Teacher Resource Book* supports teachers in increasing rigor and complexity for students by promoting critical thinking, problem-solving, and real-world applications. For instance, grade 6 lessons require students to think about mathematical concepts in reference to real-world connections. The materials deepen students' conceptual understanding through various opportunities for mathematical discourse during the learning pathway, in which students discuss, analyze, and defend their own (and others') mathematical thinking. "Concept Extension" tasks require students to build on their understanding of a concept by extending it to a different scenario. "Challenge"

activities are for students who have mastered content and are ready to try a more complex problem-solving activity.

Learning pathways through each lesson require students to demonstrate a depth of understanding that is aligned to the TEKS. Each lesson ends with a page that guides teachers on remediation, hands-on activities to reinforce learning, and activities that challenge students to push toward connected concepts at the next grade level. For example, Lesson 5 includes a hands-on activity in which students use graph paper and colored pencils to create models of percentages. The lesson also includes a challenging activity that requires students to write and solve problems in which a percent and a part are known, but the total is not. Students then create problem situations of their own and trade with peers to solve one another's problems.

Each lesson in the *Ready Texas Mathematics Teacher Resource Book* includes a "Challenge" activity, which is the only preparation for above-grade-level proficiency. The materials promote proficiency for above-grade-level concepts.

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.	1/1
4.2c	All criteria for guidance met.	4/4
—	**TOTAL**	6/6

4.2a – Materials demonstrate coherence across concepts horizontally within the grade level by connecting patterns, big ideas, and relationships.

The front matter for grade 6 provides "Table of Contents" and "Correlation Charts" sections, which detail each lesson's TEKS coverage. These sections also show which lessons connect to the TEKS in each reporting category. The beginning of each unit includes a flowchart, which gives an overview of how lessons build upon one another horizontally and vertically across grade levels. For example, in grade 6, Unit 4, lessons progress from a foundational skill (using ratios to finding measurement conversions from Unit 1). Students apply this skill to solving other types of measurement problems within geometric concepts.

The grade-level materials include horizontal alignment to support teachers and students in connecting grade-level concepts. The "Prerequisite Skills" and "Learning Progression" sections of the *Ready Texas Mathematics Teacher Resource Book* review prior knowledge and learning from the present unit to connect this knowledge to current and future lessons. For example, in grade 6, Unit 4, Lesson 24 (covering measurement conversions), the "Prerequisite Skills" section explains that students need to be able to multiply and divide rational numbers, understand ratios, rates, and proportions, solve proportions, and convert measurement units within the same measurement system using multiplication and division. The "Learning Progression" section relates previously taught grade 6 concepts (such as rates, ratios, unit rates, and proportions) to the current idea of converting units of measure within the same system.

4.2b – Materials demonstrate coherence vertically across concepts and grade bands, including connections from grades 3–12, by connecting patterns, big ideas, and relationships.

The *Ready Texas Mathematics Teacher Resource Book* demonstrates the vertical alignment of concepts and the TEKS through a flowchart that appears at the beginning of each unit. These unit charts detail each lesson's foundational, current, and future skills. For example, grade 6, Unit 5's chart lists the rationale for the learning path, which begins in grade 4 with "Fixed and Variable Expenses" and continues in grade 5 with "Balancing a Budget." The grade 6 TEKS cover "Paying for College." These skills prepare students for future "Personal Budget" skills in grade 7 and "College Expenses and Savings Plans" in grade 8.

The beginning of each lesson in the *Ready Texas Mathematics Teacher Resource Book* includes a "Learning Progression" section. This section details how prior learning from previous grade levels relates to the current lesson. The section also details how the lesson progresses toward the next grade level. For example, the "Introduction" section for grade 6, Lesson 11 states the following: "In previous grades, students learned to graph, compare, and order positive numbers. In grade 5, students learned to compare and order positive rational numbers. This year, they extend these skills to the set of negative rational numbers. They solve simple problems involving rational numbers and absolute values. In later grades, students will perform operations on rational numbers. They will use rational numbers throughout their study of algebra."

4.2c – Materials demonstrate coherence across lessons or activities by connecting students' prior knowledge of concepts and procedures to the mathematical concepts to be learned in the current grade level and future grade levels.

The introductory pages for each lesson within the *Ready Texas Mathematics Teacher Resource Book* detail prerequisite skills. These pages also detail how student learning progresses from prior grade levels, within the grade level, and toward the following grade level (when appropriate). For example, the "Introduction" page for grade 6, Lesson 14 reviews that students should already be fluent in operational skills with positive numbers. The page states that students should now utilize those skills with negative numbers. Students discuss how they will develop skills in adding and subtracting integers during the lesson. Students apply these skills later in grade 6 to help them solve equations and inequalities.

The materials demonstrate coherence across lessons by connecting students' prior conceptual knowledge to concepts they will learn in future grade levels. For example, in grade 6, Unit 3, Lesson 20, which focuses on solving equations, the "Learning Progression" section reminds the teacher that students' previous learning involved word problems with one operation. The current grade level connects students' prior knowledge of algebraic equations to using pictorial models, such as a pan balance, to solve equations. The materials state that, in future grades, "students will write and solve multistep equations and equations with variables on both sides."

4.3 Coherence and Variety of Practice

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.3a	All criteria for guidance met.	2/2
4.3b	All criteria for guidance met.	2/2
—	**TOTAL**	4/4

4.3a – Materials provide spaced retrieval opportunities with previously learned skills and concepts across learning pathways.

The materials provide spaced retrieval opportunities with previously learned skills across learning pathways between lessons and within lessons. According to the *Using Ready Texas Mathematics Instruction Pacing Guide*, lessons take two to five days to cover. Students witness the materials progress each day from the "Introduction" section of the lesson to the "TEKS Practice" section. In grade 6, Unit 1, Lesson 4 ("Ratios, Fractions, Decimals, and Percents") the "Introduction" section includes a fraction bar model and a number line model that includes percents. The lesson includes "TEKS Practice" problems, which include models at the end of the lesson and several problems requiring written explanations, analysis of a specific answer choice, and open-ended questions.

The materials provide spaced retrieval opportunities for previously learned concepts across unit lessons. The "Unit Practice" section at the end of each unit includes questions that integrate skills and ideas from previously taught lessons. For example, in grade 6, Unit 5, the "Unit Practice" section includes problems involving box plots, dot plots, checking account balances, credit reports, and salary comparisons. Students learn about these concepts throughout Unit 5.

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

The *Ready Texas Mathematics Teacher Resource Book* provides interleaved practice opportunities with previously learned skills and concepts by mixing different topics or problems in one lesson. For example, grade 6, Unit 1, Lesson 4 covers four TEKS and includes several model types (such as a fraction bar, a percent strip diagram, and a number line with actions and percents). Students apply the previous skills of representing rates and ratios to convert among fractions, decimals, and percents.

The *Ready Texas Mathematics Teacher Resource Book* supports teachers in providing interleaved practice opportunities across units. The materials accomplish this outcome by revisiting a learned concept across several lessons. For example, in Unit 4, Lessons 26–27, students apply their knowledge of determining the areas of polygons to calculate volume. In the "Unit Practice" section, students practice using those skills again.

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.	2/2
5.1c	All criteria for guidance met.	1/1
—	**TOTAL**	6/6

5.1a – Questions and tasks provide opportunities for students to interpret, analyze, and evaluate mathematical concepts and complex, real-world situations.

Questions and tasks in the *Ready Texas Mathematics Teacher Resource Book* require students to interpret mathematical concepts and complex real-world situations. For example, grade 6, Unit 1, Lesson 4 shows students an unlabeled fraction bar model that is partially shaded. Questions in the "Explore It" section direct students to think about what this model represents. The "Find Out More" section connects a number line model with percents and a few fractions labeled to the previously shown fraction bar model. The materials extend student thinking in the "Reflect" question, which asks students to do the following: "Explain how you can use a fraction, decimal, or percent to describe 1/4 of a 10-by-10 grid."

Questions and tasks in the *Ready Texas Mathematics Teacher Resource Book* require students to analyze mathematical concepts and complex real-world situations. For instance, in Lesson 10, students interpret and analyze mathematical information and real-world situations. Students examine a number line and a thermometer and discuss their similarities. The teacher then asks students to explain the difference between 20 and -20, as well as the difference between 30 and -30.

The materials require grade 6 students to evaluate mathematical concepts and complex real-world situations. For example, in Lesson 18, students look at a picture of bags of apples and then assess how this picture compares to a model drawn with rectangles. The materials ask students to evaluate why all the bags are the same size. Students also explain how the picture and the model are similar and how they can be used to answer the problem.

5.1b – Questions and tasks provide opportunities for students to create concrete models and representations of mathematical situations.

Questions and tasks in the *Ready Texas Mathematics Teacher Resource Book* provide opportunities for students to create concrete models and representations of the mathematical situations they are studying. The "Differentiated Instruction" section of each lesson helps provide these opportunities. For instance, Lessons 4, 8, and 10 include intervention activities that require students to explore fractions, division, and opposite integers by creating a concrete number line model using tape, paper, and markers.

The materials in the grade 6 lessons contain questions and tasks that require students to create different representations of mathematical situations. For example, in Unit 5, Lesson 30, Questions 3 and 4 require students to develop two graphical representations with a data set. Question 3 requires a stem-and-leaf plot, while Question 4 requires a histogram. Students can thus evaluate the shape of this data in two different ways.

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

Questions and tasks across lesson pathways provide opportunities for students to apply their conceptual understanding to new problem situations and contexts. For example, in Lesson 2, students learn about unit rates by finding equivalent fractions and using pattern tables. Students use this conceptual understanding later in Lesson 4 to predict proportional situations. In Lesson 10, students learn about positive and negative numbers and work with vertical and horizontal number lines. Students reapply their conceptual understanding of the number lines when they work with the coordinate grid later in Lesson 13.

The materials include pathways within different lesson activities that provide opportunities for students to apply their conceptual understanding to new problems or situations. For example, in the grade 6 *Ready Texas Mathematics Teacher Resource Book*, Lesson 17: Algebraic Expressions and Equations requires students to learn how to use expressions and equations to model mathematical and real-world situations. The Teacher Toolbox includes an enrichment activity for the same lesson in which students design a garden according to specific parameters. Students must use expressions to represent and evaluate the total cost of the garden's design.

Grade 6, Unit 1, Lesson 3 of the *Ready Texas Mathematics Teacher Resource Book* provides students with problems that include pictorial, graphical, and algorithmic representations of proportional situations. The Teacher Toolbox contains "Student-Led Activities," such as a "Ratio Word Problem Match-Up." This activity requires students to apply their knowledge of making predictions and comparisons using ratios to solve word problems about proportional relationships.

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 mathematical tasks.

The grade 6 materials provide tasks designed to build the student automaticity and fluency necessary to complete grade-level mathematical tasks. For example, in the Teacher Toolbox, Lesson 13's "Student-Led Activities" section helps students practice plotting points on the coordinate grid. The "Teacher-Led Activities" (prerequisite) help students practice finding coordinates in all four quadrants. Interactive tools give students 17 minutes of practice in Quadrant 1, building to all four quadrants on the coordinate plane. Additionally, Lesson 5: Solve Problems with Percent includes activities titled "Finding a Percent of a Quantity" and "Finding the Whole," as well as teacher answer keys.

Each lesson in the *Ready Texas Mathematics Teacher Resource Book* progresses from an "Introduction" section (which covers vocabulary and refreshes students' background knowledge) to "Guided" and "Modeled Instruction" sections. Finally, the materials progress to "TEKS Practice" sections. Throughout the lessons, the materials provide students with opportunities to use concrete models, use and build representations, and see mathematical situations represented in various ways (such as through number lines, area models, arrays, graphs, and tables). Students can also see math in real-world scenarios as they work toward understanding, which leads them to apply their learning with automaticity.

For example, in grade 6, Unit 2, Lesson 10 (which focuses on understanding positive and negative numbers), the *Ready Texas Mathematics Teacher Resource Book* includes definitions, multiple completed number lines, and a thermometer to illustrate positive and negative numbers. As the lesson progresses, students must fill in number lines, graph integers and opposites on number lines, translate verbal descriptions to integers, and answer several questions before arriving at the "TEKS Practice" section.

5.2b – Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures throughout learning pathways.

The *Ready Texas Mathematics Teacher Resource Book* provides opportunities for students to practice applying efficient, flexible, and accurate mathematical procedures throughout learning pathways. Lessons include a variety of representations and models for students to work with, as well as real-world examples that they can use to apply their learning. The lessons allow students flexibility in their learning

while also encouraging them to work efficiently and use accurate methods. For example, in grade 6, Lesson 7, students work to understand division with fractions. Students begin with a number line model. The materials then expose them to an area model. This lesson allows students to create their visual model by folding paper and making a real-world connection for dividing a fraction by a whole number.

The *Ready Texas Mathematics Student Instruction Book* allows students to reflect and participate in structured lesson plans. The "Introduction" section details the TEKS and includes a problem that activates students' prior learning, eliciting student reflection and explanation. Next, a "Modeled Instruction" section allows students to "explore different ways of solving real-world or mathematical problems." A "Guided Instruction" section uses "scaffolded questions for students to solve, increase understanding, and apply new/current strategies." The "Guided Practice" section includes an exemplary problem, strategies to gain or improve study habits, prompts for academic discourse, and opportunities for error analysis and to "apply higher-order thinking skills." All lessons end with a "TEKS Practice" section, which includes questions that vary in type and DOK levels.

The grade 6 materials include multiple variations of practice activities through modeled and guided practice. The materials also include independent TEKS practice and formative assessments. Practice problems utilize several question types, present different representations, and offer a mixture of DOK levels. For example, in Lesson 8, the "TEKS Practice" section includes multiple-choice problems, sorting activities, open-ended questions, and questions in which students create a model and explain their reasoning.

5.2c – Materials provide opportunities for students to evaluate mathematical representations, models, strategies, and solutions for efficiency, flexibility, and accuracy throughout learning pathways.

The grade 6 materials allow students to evaluate mathematical representations, models, and strategies through comparison activities. For example, in Lesson 4's "Connect It" activity, students move back and forth between using symbols and a strip diagram to represent fractions, decimals, and percents. In Lesson 3's "Hands-on Activity" in the "Differentiated Instruction" section, students evaluate equivalent ratios and two-color counters by discussing "how their models of counters relate to equivalent ratios they used to solve the problem."

The *Ready Texas Mathematics Teacher Resource Book* provides support opportunities for student evaluation through "Mathematical Discourse" questions. These questions prompt students to evaluate and dig deeper into their understanding. For example, in grade 6, Lesson 8, the "Mathematical Discourse" question presents students with a real-world task and asks students to evaluate the task. In this case, students decide what a person might want to think about when dividing up their bag of granola.

Several lessons include "Think-Share-Compare" activities that allow students to analyze and compare one another's solutions, methods for checking answers, rationales for why an answer is correct, and more.

For example, Unit 2, Lesson 8 includes questions such as the following: "How did you and your partner check your answer? Does Arthur's answer make sense?"

5.2d – Materials contain guidance to support students in selecting the most efficient approaches when solving mathematics problems.

The *Ready Texas Mathematics Teacher Resource Book* contains "Step by Step" section guidance to help students select increasingly efficient approaches to solving mathematics problems. In Lesson 9's "Modeled Instruction" section, the "Step by Step" instructions ask teachers to guide students in dividing decimals and whole numbers. The prompt states the following: "Ask students which would be simplest to divide." In Lesson 5's "Modeled Instruction" section, the "Step by Step" instructions guide the teacher to observe whether students multiply by a decimal number instead of a fraction when finding a percent.

The materials support students in selecting increasingly efficient approaches to solving mathematical problems through each lesson's "Mathematical Discourse" questions. These questions lead students toward more efficient ways of thinking. In Lesson 9, a "Mathematical Discourse" question guides students to understand how the commutative property works with decimals in the same way as whole numbers, fractions, and negative numbers.

The grade 6 *Ready Texas Mathematics Teacher Resource Book* structures each lesson to help students select increasingly efficient approaches to solutions. Lessons begin with models, pictorial representations, or strategies that break down concepts in a straightforward way. As lessons progress, solutions become more straightforward and efficient. For example, Unit 2, Lesson 15 includes several models and individual steps to show integer multiplication and division. The materials direct students to make connections between repeated addition, mathematical properties, and rules for integer multiplication. The materials prompt the educator to do the following: "Ask students if they find it easier to use repeated addition or the rules for multiplying integers to find the answer. Have them explain their reasoning."

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 *Ready Texas Mathematics Teacher Resource Book* explicitly states how the materials address the conceptual and procedural emphases of the TEKS in the "Learning Progression" section at the beginning of each lesson. For example, in Lesson 1, the materials address the procedural emphasis of the TEKS in the lesson by stating the following: "In Lesson 1, students learn to use ratios to compare part to whole as well as part to part. They express ratios with words and symbols, and the materials introduce students to equivalent ratios and rates. In Lessons 2–5, students learn to use rates, unit rates, equivalent ratios, and percents to solve various everyday problems."

The "Learning Progression" section at the beginning of Lesson 1 addresses the conceptual emphasis of the TEKS: "In grade 6, students develop the concept of ratio and rate reasoning. They apply an understanding of fractions, multiplication, and division developed in previous grades as they work with ratios."

The grade 6 materials provide explicit guidance and activities in each lesson to address the conceptual and procedural aspects of the TEKS. For instance, in Lesson 17, students use algebra tiles to model expressions and write expressions from models of algebra tiles. This work reflects the conceptual emphasis of the TEKS. Later, in the "Guided Practice" section, students practice using the order of operations to write expressions and equations from words. This work reflects the procedural emphasis of the TEKS.

5.3b – Questions and tasks provide opportunities for students to use concrete models, pictorial representations, and abstract models as required by the TEKS.

Questions and tasks in the grade 6 materials provide opportunities for students to use concrete models, pictorial representations, and abstract models. In Lesson 6, the "Hands-on Activity" uses fraction circles of different colors to model sharing four ounces of paint equally among five students (concrete). The "Modeled Instruction" section includes a "Picture It" activity. In this activity, students use pictures to show how three students share five banners to decorate a room (pictorial). The "TEKS Practice 9" activity asks students to write a situation that could be represented by 23/3 and explain their thinking (abstract).

In grade 6, Lesson 1, the materials ask students to use concrete representations, pictorial representations, and abstract models to represent ratios. Students use pencils and pennies to represent a rate of three pencils to 15 cents. They also draw circles of various colors to represent ratios, and then use bar models and tables to represent ratios and rates.

The *Ready Texas Mathematics Teacher Resource Book* includes questions and tasks that allow students to use concrete models, pictorial representations, and abstract models as required by the TEKS throughout lesson pathways. For example, in grade 6, Unit 2, Lesson 14, the "Visual Model" section of the "Guided Instruction" component requires students to use integer chips to model integer addition. Next, the materials allow students to add integers using a number line. The materials include multiple problems with only abstract models. These problems require students' written explanations and solutions by the end of the lesson.

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.

The grade 6 materials support students in connecting, creating, defining, and explaining concrete and representational models to abstract (symbolic/numeric/algorithmic) concepts, as required by the TEKS. For example, in Lesson 14, the MPS tip guides students to understand that a bar model, number line, and equation all model the same problem situation. Students can use each of these options to connect concrete and representational models to abstract concepts (adding and subtracting integers). The "Guided Practice" section directs students to create representational models to answer the following question: "Where is the helicopter in relation to the top of the canyon wall?" In the "Visual Model" section, the materials help students define and explain subtraction on a horizontal number line. In the "TEKS Practice" section, students evaluate and solve equations that combine positive and negative numbers.

In Lesson 20, the "Mathematical Discourse" section connects pan balances and pictorial models with solving algebraic equations. The materials in the "Modeled Instruction" section show a pan balance. A bag labeled "x-3" appears on one side of the balance. Seven blocks appear on the other side. Students discuss what the *x* represents and work through the solution. The MPS tip guides teachers to prompt students to use the context of the pan balance to set up an equation. The "Modeled Instruction" section provides support as students draw angles to model a given problem. Students answer the following question: "How does drawing the picture help you translate the problem into an algebraic equation?" The "Write It" section requires students to write out the steps of this process, helping students internalize how to write an equation from a word situation.

Lessons in the *Ready Texas Mathematics Teacher Resource Book* follow a predictable sequence of activities. This sequence starts with creating or using concrete or pictorial models of concepts and builds to more abstract concepts. Practice opportunities often include a mixture of different types of representations. For example, grade 6, Unit 4, Lesson 27 includes a "Hands-on Activity" in the "Differentiated Instruction"

section. This activity requires students to use concrete models of connecting cubes to help define and explain the abstract concept of finding volume. Students make this connection by writing down the dimensions and then using a formula to find the volume of each prism they create. Students use representational models throughout the lesson to define and explain volume. The "Guided Practice" section includes a problem with a representational model, which requires students to transition to the abstract concept of finding volume using a formula.

5.4 Development of Academic Mathematical Language

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.4a	All criteria for guidance met.	1/1
5.4b	All criteria for guidance met.	2/2
5.4c	All criteria for guidance met.	1/1
5.4d	All criteria for guidance met.	2/2
5.4e	All criteria for guidance met.	2/2
—	**TOTAL**	8/8

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

The *Ready Texas Mathematics Teacher Resource Book* allows students to develop academic mathematical language using visuals, manipulatives, or other language development strategies. Lessons incorporate teacher guidance on using "Hands-on Activities," "Mathematical Discourse" prompts, "Visual Models," and "Think-Share-Compare" routines with a partner, as well as guidance on creating visual or concrete models. For example, in Lesson 5, the "Hands-on Activity" guides students to create a model with paper, crayons, and adhesive dots to represent and solve a percent problem.

The grade 6 lesson activities provide opportunities for students to develop their academic mathematical language through visuals and discourse strategies. For example, in Lesson 3, the "Guided Instruction" section and MPS tip suggest asking students to choose one of the "Try It" problems and explain how they solved it to a partner. Students use a "Think-Share-Compare" routine. In Lesson 5, this routine instructs students to compare a number line model and a ratio table in the context of a problem. The routine communicates mathematical ideas about multiple representations to find percents.

In Lesson 29, the materials remind students about prior learning concerning statistical data. The materials ask students to explain to their partner what it means when statistical data varies. In addition, a discussion question asks how students know if a question is statistical. The "ELL Support" section reviews the terms *skewed, symmetrical, peak,* and *outlier*. During the "Modeled Instruction" section, the materials include a visual model to show the mean of a set of data. The materials also create a concrete model to help students find the median of a set of data. An additional "Mathematical Discourse" question asks students to discuss with a partner why finding the median would be useful to a convenience store owner. The materials prompt students to brainstorm other real-world examples where finding the median would be helpful.

5.4b – Materials include embedded educator guidance to scaffold, support, and extend students' use of academic mathematical vocabulary in context when communicating with peers and educators.

The *Ready Texas Mathematics Teacher Resource Book* contains opportunities for students to communicate verbally and in writing through open-ended questions throughout each lesson. "Mathematical Discourse" questions, as well as other questions within the "Step by Step" teacher guidance, allow students to discuss their learning with peers. Open-ended questions in the "TEKS Practice" section enable students to show their thinking in writing. For example, in grade 6, Lesson 3's "TEKS Practice" section, students explain why Emmanuel is right or wrong when he states that one unit rate is better than the other. The materials expect students to write their answers and reasoning using academic language.

The grade 6 materials include embedded educator guidance to first scaffold and support, and then extend students' use of academic vocabulary through communication during lesson activities. For example, in Unit 3, Lesson 19's "Introduction" section, the materials provide the following educator guidance: "Help students relate the equality of the two expressions to the pan balance." Students look conceptually at a hands-on model of an equation and discuss what a solution means in this context. In the "Guided Instruction" section, teachers remind students that the word *solution* is the value of the variable. In the "Connect It" component of the "Guided Practice" section, students describe their thinking about a solution and the equality of an equation's sides in writing. Finally, in the "Performance Task" section at the end of the lesson, students use their knowledge of pan balances and equations to communicate in writing about how the solution and parts of an equation correspond to a visual model.

Some extension activities in the Teacher Toolbox contain center activities to support and extend students' use of academic vocabulary. For instance, Lesson 2's "Student-Led Activity" titled "Use Ratio and Rate Vocabulary" gives students a word bank and sentence frames to practice new vocabulary that they learned in the lesson.

5.4c – Materials include embedded guidance to support student application of appropriate mathematical language and academic vocabulary in discourse.

The grade 6 materials include embedded guidance to support student application of appropriate mathematical language and academic vocabulary in discourse throughout lesson activities. The "Introduction" activities in each lesson offer various structures for academic discourse. For example, in Lesson 8, students explore and discuss visual models of whole numbers being divided by fractional amounts. The "ELL Support" section suggests using the models to review the following vocabulary: *divisor, dividend,* and *quotient*. Next, the MPS tip reminds teachers of the following: "Students may need many opportunities to explain the connections between different representations. Have students explain how the model solves the problem." Students then look at two different models for division, evaluating and discussing how they are helpful.

The "Try It" problems in each lesson's "Guided Instruction" section support students in using appropriate mathematical language and academic vocabulary as they work with a partner to solve and evaluate problems. In Lesson 3, the materials guide students to discuss and solve the "Try It" problems with a partner. The materials emphasize mathematical language describing proportional relationships (rate, ratio, prediction, and proportional). Students then share their ideas from this experience with the whole group.

In grade 6, the lesson materials in the *Ready Texas Mathematics Teacher Resource Book* prompt students to explain and justify their answers using precise mathematical vocabulary during oral and written discourse. In Lesson 14, when adding and subtracting integers, students evaluate whether a statement is correct. Students then justify their decisions with a partner using mathematical reasoning and academic language.

5.4d – Materials include embedded guidance to facilitate mathematical conversations allowing students to hear, refine, and use math language with peers.

The grade 6 materials include open-ended questions that allow students to connect their mathematical reasoning and language to real-world scenarios with peers. The materials embed these opportunities in the "Hands-on Activity" and "Real-World Connections" sections of the lesson. In Lesson 27, students use everyday grocery store items to compare packaging volume to content volume and record the differences. They then discuss whether the packaging is misleading and whether they have noticed this outcome with other food or drinks. In Lesson 2, students reflect on and discuss the different ways they recorded and communicated the ratio of weeks to books read. The "Real-World Connections" section guides teachers to encourage students to think of other real-world examples of unit rates.

The materials include various opportunities for students to explain their reasoning, justify their answers, or compare different methods using open-ended questions or prompts. For example, grade 6, Unit 2, Lesson 15 includes multiple "Think-Share-Compare" activities. One activity asks, "How can you check that your answer is reasonable?" Another asks, "How did you and your partner choose your answer?" The "Mathematical Discourse" prompt in the "Modeled Instruction" section includes two similar word problems for integer division. These problems ask students to compare what is the same and different about the two answers.

Every section of the *Ready Texas Mathematics Teacher Resource Book* includes guidance to facilitate mathematical discussions. For example, Lesson 14 discusses a situation in which students acquire positive or negative points in a game. The materials ask students to explain their mathematical reasoning as they answer questions. Next, in the "Modeled Instruction" section, students explain using a number line to add integers. Then, the "Guided Instruction" section prompts require students to discuss the "Connect It" problem as a class. Students subsequently work in pairs or small groups to share ideas. The MPS tip guides teachers to ask a group to share their thoughts or solutions to the "Try It" problems. Then, the materials direct other students to restate the explanations, requiring the first group to confirm or

correct the explanation. The materials use similar structures to explore and discuss models for the subtraction of integers.

5.4e – Materials include embedded guidance to anticipate a variety of student answers including exemplar responses to questions and tasks, including guidance to support and/or redirect inaccurate student responses.

The materials anticipate various student answers and provide exemplary responses to questions and tasks throughout the lessons. For example, in Lesson 9, a "TEKS Practice" question requires students to evaluate a fictional student's answer and explain how they can support their evaluation. The materials provide an exemplary answer: "Her answer is incorrect because she moved the decimal point too many places to the left. She moved it four places instead of three places."

The *Ready Texas Mathematics Teacher Resource Book* supports inaccurate student responses and alerts teachers to common misconceptions within answers. For example, in Lesson 9, the "Try It" question includes an "Error Alert" in the solutions, which tells teachers the following: "Students who wrote '$5.37' moved the decimal point in the divisor one place to the right but did not move the point in the dividend."

Lesson materials include "Error Alert" and "Misconception Alert" components in strategic locations for assessing student thinking on problems. According to the front matter, these alerts "explain a typical computational error, the wrong answer it might produce, and explanations to help students avoid those errors in the future or notify teachers of errors in student thinking that produce conceptual misunderstanding." For example, in Unit 3, Lesson 17, the "Guided Instruction" section asks students to write an expression that means "7 less than the square of a number." The section also provides the following error alert: "Students who wrote '2x-7' did not use their knowledge of exponents to represent a number being multiplied by itself."

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.	1/1
—	**TOTAL**	4/4

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

Lessons in the *Ready Texas Mathematics Teacher Resource Book* are aligned to the MPS, and each lesson includes MPS tips. For example, in Lesson 9, an MPS tip states the following: "As students work through the questions on this page, they are following a problem-solving model and describe a general strategy for dividing when the divisor is a decimal. Ask students to share their answers to Problem 14, and guide them in using precise mathematical language to communicate their reasoning (MPS 6.1.G)."

The materials list the MPS corresponding to each lesson at the beginning of the overview page. This page also lists the lesson's TEKS focus. The lesson's "MPS Tip" sections describe how each activity connects to the MPS. For example, in Unit 2, Lesson 10, during the "Introduction" activities, students learn to communicate mathematical ideas. The materials state that, during the "Guided Instruction" section, "students use signed numbers to solve problems in real-world situations." The materials further inform teachers of the following: "When students communicate their reasoning, help them use concrete representations to show the abstract concepts." The "Performance Task" section aligns with the appropriate MPS in this lesson by having students "write a problem about a real-life situation involving temperature or money." To complete the task, students use several process standards, such as applying math to everyday life, formulating a plan, selecting tools to solve the problem, and explaining or justifying the math involved in the situation.

The "Answering the Demands of the TEKS with Ready Texas Mathematics" section in the front matter explains the following: "The Mathematical Process Standards (MPS) must support content standards and be integrated into instruction. Educators must teach the content standards through intentional, appropriate use of the Process Standards." The "Mathematics Process Standards in the TEKS" section describes how the materials integrate these standards throughout lessons.

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

The *Ready Texas Mathematics* front matter describes how the materials incorporate the MPS into lessons and instruction to support content standards. The *Ready Texas Mathematics Teacher Resource Book* states that the materials fully integrate the MPS in an age-appropriate manner throughout each lesson. The materials include MPS tips that provide more in-depth guidance for how specific MPS connect to the

lesson's content. For example, the materials state the following: "Throughout the Teacher Guide, 'MPS Tips' call out special opportunities to reinforce the habits of mind that the Process Standards represent."

MPS tips provide guidance throughout all lessons about the connection of a specific MPS to a given activity. For example, Unit 3, Lesson 20 includes three MPS (listed with the TEKS at the beginning of the lesson) as well as three MPS tips throughout the lesson: 1) "Students use the context of the pan balance to set up an equation. Then they use a problem-solving model that combines analyzing the equation's operations and inverse operations to solve it (6.1.B)." 2) "As students write an equation to model the diagram, they are communicating mathematical ideas using symbols (6.1.D)." 3) "In 'Try It,' students apply what they are learning about equations to everyday life . . . (6.1.A)."

Each grade 6 lesson begins with a "TEKS Focus" section in the lesson overview that lists the MPS included in the learning pathway. MPS tips offer more information as needed within the lessons to connect the MPS to what students are learning. For example, Lesson 1's "TEKS Focus" section lists MPS 6.1D and 6.1G. In the "Introduction" section, the MPS tip states the following: "When students use standard notation to express ratios, they explain mathematical ideas using precise mathematical language (6.1.G)." In the "Modeled Instruction" section, the MPS tip states the following: "Students learn to communicate mathematical ideas using multiple representations when they use diagrams to help them understand a problem (6.1.D)."

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

The *Ready Texas Mathematics Teacher Resource Book* provides an overview of where each lesson includes the MPS. For example, each lesson contains descriptions of relevant process standards and connects them to learning objectives through MPS tips. These tips specify the MPS linked to that activity. The tips also include educator guidance to encourage and remind students of specific strategies related to the lesson.

In Lesson 5, the "TEKS Focus" lists MPS 6.1D, 6.1F, and 6.1G. The corresponding MPS tips appear in the "Introduction," "Guided Instruction," and "Modeled Instruction" sections. These tips give overviews of how the lessons incorporate these process standards. For example, the materials state the following: "As students compare the two models with each other and with the problem, they communicate mathematical ideas using multiple representations (6.1D)."

In Lesson 3, the "TEKS Focus" section lists MPS 6.1A, 6.1D, and 6.1G. In the "Introduction" section, the MPS tip for 6.1D states the following: "Students use two different representations of the problem in predicting the number of oldie songs the band will play." In the "Guided Instruction" section, the MPS tip offers the following overview of 6.1G: "Asking students to choose one of the 'Try It' problems and explain how they solved it to a partner gives students an opportunity to practice using the mathematical language in this lesson, including rate, ratio, prediction, and proportion." In the "Modeled Instruction"

section, the MPS tip gives the following overview of 6.1A: "The skill of determining unit price to use in price comparisons has widespread application in shopping situations in everyday life."

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.	3/3
6.1c	All criteria for guidance met.	3/3
—	**TOTAL**	9/9

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

The *Ready Texas Mathematics Teacher Resource Book* lessons provide opportunities for students to think mathematically, persevere through solving problems, and make sense of mathematics. In each lesson, students engage with open-ended questions that require reasoning and justification, multipart tasks that involve multiple operations and sustained problem-solving, and visual representations that support conceptual understanding and connections across mathematical ideas. The "TEKS Practice" section allows students to engage with open-ended questions that require reasoning and justification. For example, in grade 6, Unit 3, Lesson 20, which covers solving equations, the "Introduction" section requires students to think mathematically and make sense of math through an "Explore It" section, which shows a model of an equation on a pan balance. The materials ask students what *x* (a bag of blocks) represents. The materials also ask students how to isolate the bag of blocks and balance the two pans. The last question requires students to think mathematically by prompting students with the following: "Explain how you could find the number of blocks in the bag." The "Find Out More" section requires students to persevere through the abstract concept of equations. The "Connect It" section requires students to write about the steps to solve a given equation. A "Challenge" activity gives students a word problem that asks them to write and solve an equation.

In Lesson 25's "Introduction" section, students use different-sized straw segments to discover that some combinations of three side lengths will form a triangle, while others will not. Students work in pairs to make sense of a "Think" statement about the side lengths of triangles and discover what the statement means. Teachers guide students to understand why two centimeters, four centimeters, and six centimeters will not form a triangle, regardless of the arrangement. This activity and mathematical discourse help students think mathematically and persevere with problems while making sense of the concepts taught.

Supplemental activities for each lesson in the Teacher Toolbox extend and enrich students' mathematical sense-making. For example, in Lesson 15: Multiply and Divide Positive and Negative Integers, students

think mathematically and make sense of integer operations in a game environment. Students try to build true multiplication and division equations from the seven number cards they draw. Students must persevere to complete five equations on the game board.

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

The *Ready Texas Mathematics Teacher Resource Book* lessons include guiding prompts to support students in understanding, explaining, and justifying different approaches to solving problems through embedded "Think-Share-Compare" activities. These activities appear in every "Modeled" and "Guided Instruction" section. The front matter describes the activities as helping "students build mathematical proficiency within a collaborative structure. Students develop a greater understanding of mathematical models and strategies using individual think time, partner talk, individual writing time, and whole class discourse."

In Lesson 6, students use fraction bars, number lines, and illustrative models to explore and make sense of fractions as quotients (division). In the "Modeled Instruction" section, students explain how to use the models to understand and solve a given problem. The MPS tip asks students to describe what they see, match the problems with the models, and justify their matches with a partner. The "Mathematical Discourse" prompts help students understand what they see and explain how each model works.

The grade 6 materials support students in understanding and explaining that there can be multiple ways to solve problems and complete tasks. For example, in Unit 3, Lesson 20, the "Modeled Instruction" section uses a pictorial model of a pan balance, a verbal explanation, and abstract problem-solving to explain how to solve an equation in multiple ways. The "Hands-on Activity" supports students in understanding and explaining how to write and solve an equation using paper clips.

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/or educators.

In addition to including "Think-Share-Compare" routines in teacher instructions, the *Ready Texas Mathematics Student Instruction Book* also includes four "Pair/Share" prompts for students in the "Guided Practice" section of most lessons. For example, in grade 6, Unit 1, Lesson 2, a "Pair/Share" question prompts students to discuss the following: "How could you solve this problem without finding the unit rate first?"

The *Ready Texas Mathematics Teacher Resource Book* is designed to support students in making sense of mathematics through multiple opportunities for students to do, write about, and discuss math with peers and/or educators. For example, in Lesson 7's "Guided Instruction" section, students work on "Explore It" problems and share responses in small groups with peers. Later in the lesson, students work together to solve fraction division problems. Then, in the "Guided Practice" section, teachers use prompts to guide students in discussing "Connect It" problems. In these problems, students explain what different parts of

a double number line model represent, analyze the given model in writing, and justify the reasonableness of an answer using a double number line.

The materials are designed to provide students multiple opportunities to discuss mathematical thinking with peers and/or educators. Lessons include "Mathematical Discourse" sections, which include questions that help teachers "lead rich mathematical discussions." These questions include answers and key topics to listen for in student responses. For example, grade 6, Unit 3, Lesson 16 includes three "Mathematical Discourse" prompt sections. The first question prompts the educator to ask, "Why is it important to know the value of the base and the exponent?" The question also asks students to "explain why three squared and two cubed are not equivalent."

6.2 Facilitating Productive Struggle

GUIDANCE	SCORE SUMMARY	RAW SCORE
6.2a	All criteria for guidance met.	8/8
6.2b	All criteria for guidance met.	4/4
—	**TOTAL**	12/12

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

The *Ready Texas Mathematics Teacher Resource Book* supports educators in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, justifications, and multiple points of entry. For instance, in Lesson 31's "Introduction" section, students explore a percent bar graph and a relative frequency table to describe the data distribution from a real-world situation. The materials ask students to reflect on which display they would use to answer the question and why. The visual models allow students with varying backgrounds, strengths, and readiness levels to engage meaningfully with the lesson. In the "Guided Instruction" section, teachers ask students the following: "How do your descriptions of the sections of the percent bar graph describe the distribution of data?"

The materials support educators in guiding students to share their problem-solving approaches, including explanations and justifications. For example, in grade 6, Unit 1, Lesson 2's "Guided Instruction" section, students write the rates and ordered pairs for a given graph. Students then explain how to find the unit rate using the graph and justify how they can determine if it is a proportional relationship. The materials guide educators to direct students to add the unit rate coordinate pair to the graph. Students then discuss how they can determine whether the coordinate pairs are proportional.

The grade 6 "TEKS Practice" problems provide multiple entry points and offer opportunities for students to show their understanding of a concept. These problems allow students to share their problem-solving strategies (including arguments). In Lesson 32, a problem asks students whether cash or a credit card should be used to pay for repairs at a bike shop. The "Solutions" section guides educators on what an exemplary argument might look like. In Lesson 23, which covers additive and multiplicative relationships, a practice problem asks students to do the following: "Describe two situations and write the equations that could be used to represent them." This problem concerns an additive and a multiplicative relationship. Students have multiple entry points when they have choices and can leverage their experiences to make sense of mathematics.

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

The *Ready Texas Mathematics Teacher Resource Book* offers guidance and prompts to support educators in using error analysis tasks. For example, "Assessment and Remediation" sections include error guidance and methods of remediating student responses and misconceptions. Lesson 29 asks students to find the mean and median of a data set. The "Assessment and Remediation" section prompts the teacher to address students differently depending on their answers.

The *Ready Texas Mathematics* front matter describes "Error Alert" and "Misconception Alert" sections. According to the materials, these sections "explain a typical computational error, the wrong answer it might produce, and explanations to help students avoid those errors in the future or notify teachers of errors in student thinking that produce conceptual misunderstanding." Most lessons have at least one type of alert. For example, in Lesson 19, a "Student Misconception Alert" guides the educator to watch for students who only use addition to write equations. This alert reminds the educator to do the following: "Encourage students to use previous knowledge of writing expressions to utilize different mathematical operations." Lesson 20 includes three error alerts. One of them contains educator guidance for when students subtract a number from one side and add it to the other side, rather than performing the same action for both sides of the equation.

The materials contain "Solutions" sections for each student practice page. These sections guide educators on exemplary responses and gauge DOK levels for each practice problem. For example, in grade 6, Unit 4, Lesson 26, one of the "TEKS Practice" problems includes an educator prompt that states the following: "Explain to students why the other two answer choices are not correct: A is not correct because increasing the side lengths cannot cause a decrease in area. D is not correct because that is what happens to the volume of a rectangular prism when sides are doubled (DOK 3)." Another question guides the educator on a solution by stating the following: "Students should recognize that they cannot decompose the shaded region into two triangles. Instead, students should subtract a smaller triangle's area from a larger triangle's area to find the area of Hector's figure."