Curriculum Associates, LLC

Supplemental English Mathematics, 7
Ready Texas Mathematics, Grade 7

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Supplemental	**9781728022338**	**Print**	**Static**

Rating Overview

TEKS SCORE	TEKS BREAKOUTS ATTEMPTED	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	78	2	Flags Addressed	Flags in Report	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	1	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	2
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*. This book 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 across 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 lists the TEKS (written out in their entirety), the reporting category, and correlating lessons in a table format.

The materials do not explicitly link the process standards to the lessons in a correlation chart. The *Ready Texas Mathematics Teacher Resource Book* includes Mathematical Process Standard (MPS) tips in each lesson. These tips reinforce the process standards' mathematical habits of mind. For example, in Unit 1, Lesson 4, a MPS tip gives students opportunities to use estimation skills strategically, supporting Standard 7.1.C.

At the beginning of each unit, the materials include unit flowcharts, which show how concepts align horizontally and vertically across grade levels. For example, in the *Ready Texas Mathematics Teacher Resource Book*, grade 7, Unit 3: Geometry and Measurement includes a flowchart that shows which lessons students build upon from grades 4–6. The flowchart also shows current Unit 3 concepts as well as lessons that students prepare for in grades 7–8. The flowchart includes arrows that show direct alignment. The materials do not assess student performance in alignment with the ELPS.

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, which includes a program implementation link that offers teaching and learning resources as well as implementation support. These resources include suggested activities, such as discourse cards, grade-level games, digital math tools, and manipulative lists. Each lesson provides implementation steps for teachers that suggest which classroom context to use. Students can either work individually, in small groups, or engage in whole-class instruction.

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. The "Assessment and Remediation" section poses a question or situation to students, which explains potential errors and gives the teacher tips for remediation and further lessons. "Hands-on" activities in each lesson allow for learning using concrete models, manipulatives, or objects. "Challenge" activities are for students who master the content early. The materials 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 guidance for using the materials in various instructional formats, such as intervention, enrichment, extension, or as a course. The 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 provides 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 details the TEKS that the lesson addresses and explains whether the standard relates to readiness or support.

The *Ready Texas Mathematics Teacher Resource Book* includes sections for educators to consider the diverse needs of students. The book also provides supports within the unit for differentiation 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 4, Lesson 23 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. This section 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 the student and teacher resources and whether they are available online, in print, and/or in Spanish.

The online Teacher Toolbox *Implementation Guide* 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 "Program Overview" document is available in both English and Spanish. The document explains the program's overall vision and mission as well as the program's organization. It also provides sheets that offer an overview of implementing hands-on learning, building number sense, and offering powerful instructional frameworks that support ELLs.

The homepage of the Teacher Toolbox includes a "Success Central" option. This option details 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 unit learning. The "Learning Walks for Teachers CLE" document gives step-by-step instructions for teacher 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 include alignment to the ELPS. The materials meet all other guidance criteria.	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. This page details the learning progression, alignment to the mathematical practice standards, and content and language objectives. The "Lesson Overview" page also includes suggested pacing, suggested times in minutes for parts of the lesson, and an at-a-glance area that provides ideas for differentiation.

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. The 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 that are organized by lesson, including sections for instruction and practice, interactive tutorials, assessments, instructional tools, and enrichment. The correlation guide ties all lessons back to the TEKS. Assessments do not explicitly state the TEKS; however, they 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 classroom resources. These resources include 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 pairs an activity with visuals and a conversation starter.

The Teacher Toolbox includes an email template for teachers and/or instructional leaders to share with families to help them understand the materials. This email template 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. This introductory email also 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 tests.	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 front matter defines formative assessment, or progress monitoring, opportunities. This information is also in the "Solutions and Explanations with Error Alerts" section and each lesson's "Assessment and Remediation" section. The materials cite research as the purpose 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, and each unit includes "Unit Practice" pages. The *Ready Texas Mathematics Teacher Resource Book* provides sample solutions for all the questions, Depth of Knowledge (DOK) levels for each response, and a rubric. 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 incorporates 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, as well as a rubric to help teachers use the materials to consistently and accurately assess 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 front matter lists the TEKS and DOK level that each question assesses.

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, but these 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.

In the "Guided Practice" section of each lesson, students work independently while the teacher monitors and assesses their work. For instance, in Unit 5, Lesson 26, the *Ready Texas Mathematics Teacher Resource Book* guides the teacher on what constitutes a correct solution and explanation for each of the three problems. The book also details the DOK levels for the problems.

The "TEKS Practice" pages in Unit 5, Lesson 26 include four assessment questions, which include multiple-choice, multistep, open response/text entry, and graphing questions. These questions cover three DOK levels. The materials are static and include interactive item types that require students to engage with content beyond traditional multiple-choice formats.

The materials include multipart performance tasks for most lessons that allow students to show their learning in the lesson. These performance tasks include an assigned DOK level and rubrics to guide teachers in assessing and scoring student understanding. For example, Lesson 5 includes a performance task at DOK Level 3 that consists of four parts. The materials give the teacher 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 understanding of lesson content. These opportunities appear in the "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" sections of these questions explain correct answers. For example, in Unit 3, Lesson 14's "Guided Practice" section, 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 Task" sections, which appear among lessons and provide another form of assessment. Each of these tasks includes an adjoining rubric that guides the teacher in objectively determining overall performance. Rubrics include explanations for each point value for every problem. Grade 7 includes eight performance tasks. For example, the materials break Lesson 31's performance task into three parts. The *Ready Texas Mathematics Teacher Resource Book* includes a rubric for each section to assess student 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 using multiple tasks and activities to respond to students' assessed needs. Each lesson concludes with challenge activities for students who have mastered skills, reteaching opportunities for students who need extra practice, and on-level problems that apply and extend students' knowledge to new situations. For example, the "Differentiated Instruction" page at the end of Lesson 21 gives students a volume problem. This problem

includes a table that provides error analysis and guidance for the teacher based on mistakes that students make.

The supplemental lesson resources in the Teacher Toolbox provide teachers with at least one task for each lesson that the materials differentiate for on-level, below-level, or above-level students. These tasks appear on the "Student-Led Activities" pages. For instance, in Lesson 9, the "Percent Change" card game differentiates cognitive demand by changing the percent change amount from multiples of ten to more complex numbers.

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.

The materials provide a unit self-check for students to track their progress on each unit's content.

The materials do not include tools for teachers to track student progress and growth.

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 offer educators specific questions and instructions that they should supply to students along the learning pathway. For example, in grade 7, Unit 3, Lesson 20's "Introduction" section, the "Step by Step" component prompts the educator to have students explore the net of a rectangular prism that they create from a box.

The "Tools for Instruction" section in the Teacher Toolbox includes a document that helps teachers check their understanding of the lesson's prerequisite material. For example, in Lesson 22: Sample Spaces, the "Tools for Instruction" document walks the teacher through activities to ensure students understand probability and vocabulary concerning likelihood. At the end of the lesson, the materials provide an activity to check student understanding. This section includes guidance on responding to the given scenario, explains what structures students should use (e.g., a number line), and details what questions teachers should ask students. An error analysis table guides the teacher 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, or 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.

The lessons in the *Ready Texas Mathematics Teacher Resource Book* include scaffolding and prerequisite review information to support teachers in meeting student needs at every level of understanding. For example, in grade 7, Unit 2, Lesson 7, the "Introduction" section reviews proportional relationships on a graph and makes connections to equations for proportional relationships. In the "Step by Step" section, prompts guide teachers as students connect a verbal description and a table that matches the proportional relationship. The "Explore It" section includes a whole-class activity that breaks down the problem with further questioning. The "Modeled Instruction" section requires students to extend their understanding to a new situation with the same representations. Students engage with tables, graphs, and (finally) equations.

The grade 7 materials include differentiated "Student-Led Activities" in the Teacher Toolbox. For example, Unit 2, Lesson 9 (covering equations for proportional relationships) includes an activity with on-, below-, and above-grade-level versions. These leveled versions differentiate the amount of scaffolding or extension that they provide to students.

The Teacher Toolbox includes "Tools for Instruction," which are supplemental resources that support students who need additional help within a lesson or with prerequisite skills. For example, Lesson 7: Equations for Proportional Relationships includes three documents that provide guidance and support for the teacher to help students struggling with below-grade-level skills. These documents also support students needing additional support within the grade-level lesson.

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 7 includes lesson objectives, prerequisite skills, essential academic vocabulary for the upcoming lesson, and definitions for all words. For example, Lesson 11 provides two-step equations and inequality vocabulary with student-friendly definitions. The teacher's "Step by Step" prompts guide students toward understanding the meaning of *inequality*. These prompts also help reinforce the meanings of inequality symbols.

The *Ready Texas Mathematics Teacher Resource Book* for grade 7 includes at least one ELL Support tip in each lesson, giving explicit educator guidance for language support. For example, in Lesson 11, this tip guides the teacher in helping students understand *reverse* in the context of mathematical operations by relating it to putting a car in reverse.

The grade 7 lessons in the *Ready Texas Mathematics Teacher Resource Book* include embedded guidance for language support in the "Step by Step" teacher prompts. For example, in Unit 5, Lesson 26, the "Step by Step" section guides the teacher to review three listed vocabulary terms: *ratio, equivalent ratio,* and *proportional relationship.* In the same lesson, the ELL Support tip in the "Guided Instruction" section suggests reminding students about the days of the week and the meaning of the weekend to understand the problem's context.

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 7 *Ready Texas Mathematics Teacher Resource Book* offers "Challenge" activities at the end of lessons for students who have mastered the grade-level lesson content. For example, Lesson 10 includes a "Challenge" activity in which students write a problem involving a non-proportional linear relationship, create a table, graph, and equation, and then switch their work with a partner to check for accuracy.

The materials contain enrichment activities in the Teacher Toolbox that align with each lesson. For example, Lesson 3: Add and Subtract Rational Numbers includes four enrichment activities. The lesson's resources include a student copy and a teacher copy of each activity.

Each lesson's "Modeled Instruction" component includes a "Concept Extension" section, which gives teachers ideas on extending students' thinking about a concept. For example, in Unit 3, Lesson 16, students work on a "Real-World Connection" extension activity. This activity guides students through a proportion problem about the shadows that a person and a building cast.

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. 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 7 materials provide various options for students to show their understanding of concepts during each lesson. These options include, but are not limited to, different interactive-type questions, which appear on the "TEKS Practice" and "Unit Practice" pages, as well as in the "Performance Task" and "Assessment and Remediation" sections. In Lesson 13 in the *Ready Texas Mathematics Teacher Resource Book*, students express a problem using words, represent the numbers they use for the words, and perform solution strategies.

The materials provide educators with suggested activities throughout lessons that use multiple problem-solving methods, including activities that incorporate visual models and real-world connections. For example, in grade 7, Unit 3, Lesson 21, which focuses on the volume of solids, educators lead students to build a model using unit cubes in the "Visual Model" section. This work builds students' understanding of the volume formula. The "Real-World Connection" section guides the teacher in leading students through a discussion that includes farming, tanker trucks, and swimming pools.

The *Ready Texas Mathematics Teacher Resource Book* provides educators with a rubric and instructions in the "Step by Step" section of the "Performance Task" component, which appears at the end of several lessons. The front matter describes these tasks as open-ended "critical thinking problem(s) that integrate multiple standards." For example, in grade 7, Unit 5, Lesson 29, the "Performance Task" section covers budgets. The materials give students a situation to identify fixed costs, compare income to expenses, and analyze spending on transportation.

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. For example, in Lesson 20: Nets and Surface Area, students explore the net of a rectangular prism. The materials guide teachers to prompt students to think about cutting a box open and laying it flat. Teachers ask students the following: "Can you tell what the prism is made up of? What shape is each face of the prism?" Then, the materials lead students to examine the features of the shapes and how the net has three pairs of rectangles, each with the same dimensions.

The materials anchor big ideas by including questions that the educator can use to elicit students' critical thinking. For example, in Unit 2, Lesson 9, the "Step by Step" section in the "Guided Instruction" component activates students' prior knowledge by directing the educator to do the following: "Tell students that this page helps them use what they know about percents to solve a type of problem about the percent of increase or decrease." The materials anchor big ideas within the questions in the "Real-World Connection" and "Mathematical Discourse" sections. One of those questions asks the following: "Can you explain what parts of the situation the ratio 3/5 represents? What does five represent? What does three represent?"

The materials include explicit prompts and guidance for educators to highlight and connect key patterns, features, and relationships. For example, Unit 2, Lesson 10 explores key features of linear relationships by guiding the educator to do the following: "Remind students that a rate is a ratio that compares two quantities measured in different units. A rate is constant if it is the same for every pair of numbers." The materials also advise teachers of the following: "Make sure students realize that the points on the graph correspond to the ordered pairs from the table." The MPS tip explicitly reminds educators that students will have a more complete understanding of linear relationships because they use and compare multiple representations of tables, graphs, and equations to represent the relationships.

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

The grade 7 lesson plans in the *Ready Texas Mathematics Teacher Resource Book* include guidance for several instructional routines and supplementary resources, including when and how to use them. For example, in Lesson 8, the *Ready Texas Mathematics Instruction Pacing Guide* suggests that the lesson should take five days (35–45 minutes daily). The lesson guides teachers through the "Step by Step" prompts to use "Visual Models," "Mathematical Discourse," "Real-World Connections," "Hands-on Activity," "Try-It," and "TEKS Practice" pages with students. The materials provide differentiation strategies through each lesson's "ELL Support," "Differentiated Instruction," "Hands-on," and "Challenge" activity components. The materials include opportunities throughout lessons for students to collaborate and share their mathematical thinking in the "Think-Share-Compare" routines, "Mathematical Discourse" activities, and "Real-World Connection" activities. For example, in Unit 3, Lesson 19, the "Guided Practice" section guides the educator to have students solve problems individually. Students then share their answers with partners, helping students evaluate the reasonableness of answers, steps used, and the concept of using scale models.

The materials include explicit guidance for educators and opportunities for students to use a variety of instructional approaches. The materials spread these approaches throughout the lessons with 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 that supports students through various practice models. For example, in the Teacher Toolbox, students receive targeted support through "Teacher-Led Activities" (in which students can work in whole or small groups), "Student-Led Activities" (which allow students to collaborate with peers to solve problems), and "Enrichment" activities (in which students can work individually or in small groups).

Performance tasks and formative assessments in the *Ready Texas Mathematics Teacher Resource Book* include error analysis guidance for the teacher, which includes suggested activities or lessons to complete with students who make errors. Error analysis tables and rubrics guide the teacher toward the appropriate action based on students' levels of need. The materials also provide leveled activities for each group of students. For example, in Lesson 11, the materials present students with a "Performance Task" that is broken into three parts. Each part includes a scoring rubric that guides the teacher. The rubric explains that it supports the teacher's understanding of where the student may need additional assistance. The page following this task includes another "Assessment and Remediation" task, which

includes a rubric, a "Hands-on" activity, and a "Challenge" activity that supports student learning in response to the performance task.

The materials include several consistent routines in each lesson. These routines guide the teacher to check for each student's level of knowledge. The routines also provide ideas for differentiating instruction. For example, in grade 7, Lesson 18, the "Assessment and Remediation" section includes guidance for the educator to ask students to find the area of a composite figure on a grid. The materials include a chart with advice for struggling students and a "Hands-on" or "Challenge" activity for follow-up instruction. The materials refer to a grade 6 lesson for students who continue to struggle, which helps reinforce the underlying conceptual knowledge that students need for the lesson's 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 at various parts of the lessons. These activities support student engagement and provide guidance to support educators in practical implementation. For instance, many lessons in the *Ready Texas Mathematics Teacher Resource Book* include a "Concept Extension" component in the "Modeled Instruction" section to extend students' thinking about the central concept. In Lesson 25, the "Concept Extension" guides educators to lead small groups of students to discuss experimental probability predictions. Students then combine group data in a large table to compare experimental and theoretical probabilities.

The lessons include "Enrichment" activities within the Teacher Toolbox, which provide guidance for teachers and students on their completion. The materials also provide answer keys for these activities. For example, in grade 7, Lesson 18: Area of Composite Figures, the materials include an enrichment activity in which students design a chicken run according to specific parameters. Students must use a composite figure, calculate area, and calculate how much fencing they will need to enclose the design.

The grade 7 lessons in the *Ready Texas Mathematics Teacher Resource Book* include a "Challenge" activity at the end to help students extend and enrich their understanding. In Lesson 23, the materials challenge students to examine a blend of colored jelly beans to evaluate how many of each of two colors would make 74%. In Lesson 26, the "Challenge" activity requires pairs of students to develop a categorical survey question, collect data from their classmates, and make a circle graph to display their findings. The materials include guidance for educators 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.

The grade 7 lesson materials include prompts and guidance to support educators in providing timely feedback across all parts of a lesson's delivery. In Lesson 25, during the "Modeled Instruction" section, the "Step by Step" instructions guide teachers to ask students to explain how comparing ratios helps predict how a cup will land. The "Mathematical Discourse" section includes three questions. The section

also includes teacher guidance on what to listen for when students respond to the questions. In the "Guided Practice" section, the "Step by Step" instructions direct students to share their thoughts about one problem and discuss it with a partner. The students then complete a "Try It" activity. This activity includes an error alert that explains how students may arrive at a wrong answer and provides directions on how teachers can support students.

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

Lesson materials guide and support educators in the "Step by Step" section of each lesson. For example, in grade 7, Unit 5, Lesson 26, this section provides the following educator prompts: "If someone forgot to label each section of the circle graph with the percentage, how could you still use this graph to determine the most or least popular sport? How do you use equivalent ratios to find the total number of students who chose basketball?" These questions prompt the teacher to review setting up and solving a proportion, if needed.

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 7 *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 support in "Hands-on Activities," "Visual Models," "ELL Support," "Concept Extensions," and academic discourse activities across all lessons.

The grade 7 materials include generalized tips for ELLs and do not specifically address multiple levels of language proficiency. While the materials offer helpful guidance, the support they provide is not vocabulary-focused and helpful to students at varying levels of independence. While the *Ready Texas Mathematics Teacher Resource Book* includes hands-on activities, visual models, and discourse opportunities, it 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 a limited understanding of high-frequency words).

The materials contain sections throughout each lesson that include strategies to support ELLs who can understand English with some second language acquisition support (including "ELL Support," "Visual Model," and "Hands-on Activity" sections). For example, in grade 7, Unit 1, Lesson 8 on proportional relationships, an "ELL Support" section begins with the vocabulary words *original price, discount,* and *sale price.* These words appear within a real-life scenario of a store advertisement. The "Hands-on Activity" section utilizes strips of colored paper as bar models to compare differences in the vocabulary words *markup, simple interest, tax, gratuity,* and *commission*. Some lessons have two "ELL Support" boxes, such as Lesson 16, which provides guidance for the word *similar* in the "Introduction" section. In the "Modeled Instruction" section, another "ELL Support" box guides the teacher to discuss the word *corresponding* by drawing two polygons on the board and comparing matching sides and angles.

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/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, as well as guidance for the teacher to facilitate these discussions. Such discussions foster student comprehension and build background knowledge. For example, grade 7, Lesson 11's "Introduction" section includes a prompt for introducing the definition of *inequality* and inequality symbols using a visual model of a pan balance. The prompt includes mathematical discourse guidance, which prompts teachers to ask students to discuss the reasonableness of possible solutions.

The materials include embedded guidance for teachers to increase ELLs' comprehension through oral and written discourse opportunities in each lesson. For example, grade 7, Unit 3, Lesson 18 includes several written questions in the "Explore It" section. Meanwhile, the "Step by Step" section includes several teacher prompts. These questions and prompts promote students' comprehension of splitting apart a composite figure and finding the area of each part. The "Mathematical Discourse" section of the "Modeled Instruction" component extends this discussion of composite figures through a "Think-Share-

Compare" activity. Each lesson's "Guided Instruction" and "TEKS Practice" pages include written explanations and justifications.

The grade 7 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 leveraging proficient speakers to help ELLs. The "ELL Support" section within lessons 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 with DOK levels for each response, as well as a rubric. These questions correlate to 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 details 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 DOK levels, from recall to extended thinking. The "Solutions" section lists the DOK level of each question. For example, in Unit 3, Lesson 17, students find the circumference and area of circles. The lesson supports students in extending their thinking to parts of circles and, finally, to a real-life connection concerning tire rotation. These multistep problems promote students' deeper understanding of the concept.

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* helps teachers increase rigor and complexity for students. Lessons promote critical thinking, problem-solving, and real-world applications. For instance, the grade 7 lessons require students to think about a mathematical concept that involves a real-world connection. Students deepen their conceptual understanding through various "Mathematical Discourse" opportunities along the learning pathway, in which the materials encourage students to discuss, analyze, and defend their own (and others') mathematical thinking. "Concept Extensions" ask students to build on their understanding of a concept by extending it to a different scenario. "Challenge"

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

Learning pathways through each lesson in the *Ready Texas Mathematics Teacher Resource Book* require students to demonstrate a depth of understanding that aligns with the TEKS. Each lesson ends with a page that guides teachers on remediation, "Hands-on" activities to reinforce learning, and "Challenge" activities to push students toward connected concepts in the next grade level. For example, Lesson 2 includes a "Hands-on" activity in which students use colored pencils and folded paper to model fraction multiplication. Students also complete a "Challenge" activity in which they create a story problem to match a given fraction multiplication expression. Students find the answer and explain what it means in the story's context.

Each *Ready Texas Mathematics Teacher Resource Book* lesson includes a "Challenge" activity. This activity is students' only preparation for the next 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 *Ready Texas Mathematics* front matter for grade 7 provides "Table of Contents" and "Correlation Chart" resources, which detail each lesson's TEKS coverage. These resources also detail which lessons connect to the TEKS in each reporting category. The unit flowchart at the beginning of each unit gives an overview of how lessons build from one another horizontally and vertically between grade levels. For example, in grade 7, Unit 3, the lessons progress from Unit 1's foundational skill of using proportional relationships. Students apply this skill to solve other types of proportional problems related to geometric concepts, such as similar figures and scale drawings.

The grade-level materials offer horizontal alignment to support teachers and students in connecting grade-level concepts. In each lesson's "Prerequisite Skills" and "Learning Progression" sections, the *Ready Texas Mathematics Teacher Resource Book* reviews students' prior knowledge and learning from the current unit, connecting this knowledge to what students will learn in current and future lessons. For example, in grade 7, Unit 3, Lesson 14, which covers "Measurement Conversions," the "Prerequisite Skills" section notes that students know how to use proportions and unit rates and can convert measurements within the same system. The "Learning Progression" section reiterates that students will use previous grade 7 concepts such as proportional reasoning to convert units of measurement between systems.

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 coherent vertical alignment of concepts and the TEKS through a flowchart at the beginning of each unit. These unit charts show each lesson's foundational, current, and future skills. For example, at the beginning of grade 7, Unit 5, the chart lists the rationale for a learning path that began in grade 4 with "Fixed and Variable Expenses." This learning path continues with "Balancing a Budget" in grade 5 and "Paying for College" in grade 6. TEKS-aligned grade 7 skills in "Personal Budgets, Income Tax, and Interest Rates" prepare students for future skills such as "College Expenses and Savings Plans" (grade 8) and "Interpreting Exponential Functions" (high school).

The beginning of each lesson in the *Ready Texas Mathematics Teacher Resource Book* includes a "Learning Progression" section. This section includes information about how related learning from prior grade levels is relevant to the current lesson. This section also explains how the teaching in the current lesson will progress toward the next grade level. For example, the introductory page for grade 7, Lesson 3 states the following: "In grade 5, students added and subtracted fractions . . . In grade 6, students learned about numbers on opposite sides of 0 on a number line . . .Earlier in grade 7, students developed an understanding of rational numbers . . . In this lesson, students use number lines and equations to represent and solve word problems involving the addition and subtraction of positive and negative fractions. In grade 8, students extend their understanding of the number system to include irrational numbers."

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 of lessons in the *Ready Texas Mathematics Teacher Resource Book* list prerequisite skills and information regarding how learning progresses from prior grade levels, within the grade level, and toward the following grade level (when appropriate). For example, grade 7, Lesson 14's "Introduction" page reviews that students should know how to use unit rates and proportions, as well as convert measurements within a measurement system. Students extend these skills to converting measurements between systems. Later, students apply this new understanding to express measurements differently, such as in scientific notation.

The materials demonstrate coherence across lessons by connecting students' prior conceptual knowledge to concepts that students learn in future grade levels. For example, in grade 7, Unit 3, Lesson 17, which focuses on a circle's area and circumference, the "Learning Progression" section reminds the teacher that students' previous learning included finding the area of triangles, special quadrilaterals, and polygons. The materials further explain that those skills extend to current grade-level concepts related to solving the circumference and area of circles using formulas. The materials then explain that knowledge from grades 6–7 is foundational for grade 8, as students "solve real-world and mathematical problems that involve surface area of a cylinder and cone."

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 *Ready Texas Mathematics Teacher Resource Book* provides spaced retrieval opportunities with previously learned skills across learning pathways between lessons and within lessons. The *Ready Texas Mathematics Instruction Pacing Guide* states that lessons will take two to five days to cover. The guide further states that students will see the materials progress daily from the lesson's introduction to the "TEKS Practice" section in the lesson's final part. For example, in grade 7, Unit 2, Lesson 9, which focuses on percent of change, the "Introduction" section reviews how to model and find a percent increase using a bar model. The section extends this skill to modeling and finding a percent decrease. The "Modeled Instruction" section provides two more problems with models before the problems transition to word problems. The materials encourage students to use proportions to solve instead of bar models. The materials include "TEKS Practice" problems at the end of the lesson, in which students can show their learning through multiple-choice questions, 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. A "Unit Practice" section at the end of each unit includes questions that integrate skills and concepts from several previously taught lessons. For example, in grade 7, the Unit 5 Practice contains problems related to reading and interpreting graphs as well as calculating interest, budgets, and net worth. Unit 5 teaches all of these concepts.

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 7, Unit 1, Lesson 2 covers multiplying and dividing rational numbers (positive and negative fractions, integers, and decimals), building from several related TEKS.

The *Ready Texas Mathematics Teacher Resource Book* supports teachers in providing interleaved practice opportunities across units by leveraging a learned concept across several lessons. For example, in Unit 2, Lessons 7–9, students apply skills using equations to solve problems involving different types of proportional relationships. 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, in grade 7, Unit 2, Lesson 10, the "Modeled Instruction" section begins with a word problem. This problem includes a verbal description of a situation that students connect to a table and graph of the data. The "Connect It" section includes questions to interpret and analyze the models and verbal descriptions. Multiple questions follow this section, which require students' extended evaluations in words.

In Lesson 17, students interpret and analyze mathematical information and real-world situations by using a string to measure across and around three different-sized circles. Students calculate the quotient using the data they collect from each circle. Students then interpret the data by analyzing the quotients that they calculated. Students conclude that the quotient should always be approximately pi.

The materials require students to evaluate mathematical concepts and complex real-world situations in grade 7. For example, in Lesson 16, which focuses on scaled drawings, students are introduced to a model with rectangles, each representing a TV with one of the heights missing. The materials guide students to set up ratios to represent the dimensions of the TVs. The "Step by Step" section instructs the teacher to remind students that "corresponding parts must be in corresponding positions in the ratios." The materials ask students to pair up, analyze, and evaluate why two different proportion setups for the problem are equivalent.

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. Each lesson includes such opportunities in the "Differentiated Instruction" sections. For instance, in Lesson 3, students create number lines to compare rational numbers. In Lesson 11, students use algebra tiles to model and solve an inequality. In Lesson 22, the materials direct teachers to show

students tree diagram models of theoretical probability outcomes. The "Guided Practice" section provides a verbal description and a table of theoretical probability outcomes, and students create a model of the sample space.

The grade 7 lessons contain questions and tasks that require students to create different representations of mathematical situations. For example, Unit 2, Lesson 10's "Guided Practice" section provides a verbal situation and an equation. Then, students create a graphical representation and explain what the rate of change means.

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 in the grade 7 *Ready Texas Mathematics Teacher Resource Book* provide opportunities for students to apply their conceptual understanding to new problem situations and contexts. For example, in Lesson 9, students explore and review finding the percent of a number, then apply their conceptual understanding of percent using proportions to answer percent change questions. In the Teacher Toolbox, a "Math Centers" activity ("Find Percent Change") gives students an original and adjusted amount and requires them to apply their knowledge by calculating the percent change.

The materials include pathways within lesson activities that allow students to apply their conceptual understanding to new problems or situations. For example, in grade 7, Lesson 18 of the *Ready Texas Mathematics Teacher Resource Book*, students learn how to calculate the area of a composite figure. An accompanying enrichment activity in the Teacher Toolbox requires students to build a chicken run using specific parameters concerning shape and size. Students use a graphing technology program to create the enclosure, calculate the area, and make adjustments until they can create the correct dimensions. Students then answer questions about how much fencing they will need to build the enclosure.

Grade 7, Lesson 7 in the *Ready Texas Mathematics Teacher Resource Book* allows students to divide a circle into eight parts. Students then use those parts to create a shape similar to a parallelogram to calculate the area. Later in the lesson, students build on this concept when they learn how to calculate the area of a circle given its radius or diameter.

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 7 materials provide tasks designed to build the automaticity and fluency necessary for students to complete grade-level mathematical tasks. For example, in the Teacher Toolbox, Lesson 3: Add and Subtract Rational Numbers includes five activities in the "Unit Practice" section (under the "Fluency and Skills Practice" section). These activities allow students to practice the necessary skills to work toward fluency, and each includes a corresponding teacher answer key. The "Teacher-Led Activities" section of the lesson includes five more practice activities.

Each lesson in the *Ready Texas Mathematics Teacher Resource Book* progresses from introducing vocabulary and refreshing necessary background knowledge to "Guided and Modeled Instruction" and then "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 a level of understanding that will allow them to apply their learning with automaticity.

For example, in grade 7, Unit 3, Lesson 20, which focuses on nets and the surface area of solids, the *Ready Texas Mathematics Teacher Resource Book* begins with a few basic problems. In these problems, students label and find the area of each face of a rectangular prism's net. As the lesson progresses, students answer several discussion questions that require them to evaluate the surface area of different shapes, analyzing their nets using whole and fractional number measures. Students finally arrive at the "TEKS Practice" pages at the end of the lesson.

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 through which they can apply their learning. The lessons allow students flexibility in their

learning as they work efficiently and use accurate methods. For example, in grade 7, Lesson 9, students work to understand percent change. Students begin by working with a bar model. The materials then expose students to a number line model. The lesson allows students to use these models to think about real-world situations in which percents are calculated as an increase or decrease. Students work towards a more efficient algorithm.

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

The grade 7 materials include multiple variations of practice activities through modeled and guided practice. The materials also include independent TEKS practice and formative assessments. Practice problems employ several question types, present different representations, and include a mixture of DOK levels. For example, in Lesson 20, which focuses on volume, the "TEKS Practice" section includes multiple-choice problems, problems using nets, yes/no questions, open-ended questions, and questions in which students 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 7 materials allow students to evaluate mathematical representations, models, and strategies through comparison activities. For example, in Lesson 5, the "Modeled Instruction" component of the "Mathematical Discourse" section asks students to compare a tape diagram and a double number line. The materials include the following prompts: "What is one way both are alike? How are they different? Is there one model that helps you see the relationship more clearly? What do you like about it?"

The *Ready Texas Mathematics Teacher Resource Book* provides support opportunities for student evaluation through "Mathematical Discourse" questions. These questions require students to evaluate and dig deeper into their understanding. For example, in Lesson 10, the "Mathematical Discourse" question presents students with a real-world task and asks students to find two different solutions. The materials direct students to discuss the following questions: "What is another way that you could represent the relationship between the two quantities? How could you use this representation to find the starting value and the rate of change?"

Several lessons include "Think-Share-Compare" activities that allow students to analyze and compare one another's solutions, methods for checking answers, rationales for answer selection, and more. For example, Unit 2, Lesson 12 offers students multiple opportunities to check if they can solve one of the problems differently. The lesson also offers students strategies to check their answers and analyze the wrong answer for a question on the page.

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. This guidance helps students select increasingly efficient approaches to solving mathematical problems. In Lesson 32's "Guided Practice" section, the "Step by Step" instructions guide the teacher in reviewing with students how to simplify the formula for computing an amount. In Lesson 14's "Modeled Instruction" section, the "Step by Step" instructions have teachers guide students to use a double number line model. Students use this model to find how many miles are equivalent to given distances in kilometers before moving on to using a proportion.

The "Mathematical Discourse" questions in the lessons support students in selecting increasingly efficient approaches to solving mathematical problems. These questions lead students toward a more efficient method of thinking by fostering deeper understanding. In Lesson 8, a "Mathematical Discourse" question begins by discussing students' previous work with percents. Then, the lesson reviews how percents can be written. Finally, the lesson prompts a discussion about which representations students can use when solving a percent problem.

The *Ready Texas Mathematics Teacher Resource Book* structures each lesson to support students in selecting 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 14, which focuses on measurement conversions between systems, begins with a number line model and a table showing that one inch equals 2.54 centimeters. After using the models, the "Guided Practice" section prompts teachers to remind students that 100 kilometers is approximately 60 miles. Students use this information to estimate the number of miles in 21 kilometers. The lesson guides teachers to invite a student volunteer to set up and solve a proportion.

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, Lesson 6 addresses the conceptual emphasis of the TEKS by stating the following: "The ability to represent a relationship in multiple ways—through words, tables of values, or graphs—and to move smoothly among them gives students a range of tools to identify relationships and solve problems involving them."

The "Learning Progression" section at the beginning of Lesson 1 addresses the procedural emphasis of the TEKS. The section states the following about students: "In this lesson, they learn that the graph of a proportional relationship is a straight line that passes through the origin. They learn that another name for the unit rate is the constant of proportionality and that in a proportional relationship, the unit rate, constant of proportionality, and rate of change are all equal."

The grade 7 materials provide explicit guidance and activities in each lesson to address the conceptual and procedural aspects of the TEKS. For instance, in Lesson 8, students evaluate pictorial, tabular, verbal, numeric, graphical, and algebraic representations of rates of change. Students later use a bar model to visualize the relationship between the parts and the whole. They write this relationship using equations (addressing the conceptual aspect of the TEKS). Later, the materials provide students with word problems that they solve by making an equation or proportion (addressing the procedural aspect 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 7 materials provide opportunities for students to use concrete models, pictorial representations, and abstract models. In Lesson 6's "Hands-on" activity, students use red and white paper squares to create concrete models of specified ratios. Students then glue them onto paper. Students use multiple pictorial models (including graphs, circles, and rectangle models) throughout problems in the lesson. Multiple problems throughout the lesson include only abstract models and require solutions with explanations. One question in the "Guided Instruction" section provides students with an abstract model of a table and asks them three explanation questions about the data.

Lesson 21 asks students to use concrete models, pictorial representations, and abstract models to find the volumes of prisms and pyramids. Students start with a "Hands-on" activity in which they make right triangular prisms, join them with a partner's prism, and find the rectangular prism's resulting volume. The lesson then guides students to find the volume of the original solid. In "Find Out More," students make sketches of prisms and pyramids to solve volume situations. Finally, in the "Guided Instruction" section, students use the algebraic formula to find the volumes of prisms and pyramids.

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, Unit 3, Lesson 17 includes a "Hands-on" activity in the "Modeled Instruction" section. This activity requires students to connect areas of circles. Students cut large paper circles into eight or 16 congruent sectors. This work allows students to recreate the parallelogram model that the "Picture It" component provides. Students discuss how the parallelogram relates to the circles' areas. Next, the lesson gives students opportunities to find and compare areas of circles using diagrams. The materials include multiple problems with only abstract models. These problems require 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 7 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 5, after the materials give them a ratio, students use models and drawings to find the rate and unit rate. The "Visual Model" section asks students to use a double number line model and sketching to find proportional ratios that fit a given situation. The "Mathematical Discourse" section asks students to compare using a tape diagram to a double number line model. The materials ask students the following: "We have used two different visual models for ratios. What is one way that both are alike? How are they different? Is there one model that helps you see the relationship more clearly?" In the "TEKS Practice" section, students evaluate and solve ratio problems using double number lines and proportions or equivalent ratios.

In Lesson 13, students use concrete models and representational models to solve problems involving inequalities. In the "Introduction" section, students create dollars and quarters with cutouts. This work represents the real-world scenario of purchasing tickets and keeping track of one's change. The materials ask students the following questions related to this activity: "Could fewer than 20 tickets be purchased? What is the greatest number of tickets that can be purchased and still have $50 left?" Next, students use algebra tiles to model an inequality and connect that model to a number line. The "Modeled Instruction" and "Guided Instruction" sections allow students to solve a word problem using an inequality and then graph the solution on a number line. Finally, the materials ask students to define the inequality statement and write out the steps for solving the inequality.

Lessons in the *Ready Texas Mathematics Teacher Resource Book* follow a predictable sequence of activities. Lessons start with creating or using concrete or pictorial models of concepts. Students then progress to more abstract concepts. Practice opportunities often include a mix of different types of representations. For example, grade 7, Unit 3, Lesson 17 includes a "Hands-on" activity in the "Differentiated Instruction" section that requires students to measure the diameter and circumference of several circular objects. Students create a table with this data and use a calculator to divide the circumference by the diameter. This work connects to the abstract concept of pi and helps students define it. In the "Explore It" section, students explain how representational models connect to the abstract concept of circumference. Students then use several models to connect to and define finding the circumference of circles.

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 "Think-Share-Compare" routines with a partner, creating visual or concrete models, as well as using visual models, "Hands-on" activities, and "Mathematical Discourse" prompts. For example, in Lesson 5, the "Hands-on" activity guides students to create ratios of the number of wheels to the type of vehicle. The MPS tip reminds teachers to emphasize that students should use precise mathematical language in the discussion.

The grade 7 materials provide opportunities across lesson activities for students to develop their academic mathematical language through visuals and discourse strategies. For example, Lesson 9's "Modeled Instruction" section guides students to explain how a bar model relates to a proportion. The lesson's MPS tip reminds teachers to have students justify their mathematical ideas using precise language. In Lesson 12's "Guided Instruction" section, the materials guide students to solve problems individually, then engage in "Pair/Share" routines to discuss their solutions with a partner.

In Lesson 29's "Introduction" section, the materials ask students to explain the difference between gross and net income and distinguish between fixed and variable expenses. The "ELL Support" section guides students in creating their own native language translation sheets to understand the language involved in personal budgets. "Mathematical Discourse" questions ask students the following questions: "Why is it important to distinguish between fixed and variable expenses? Why do you think Jonah puts money into savings each month?" These questions include other "why" and "how" questions designed to provoke students' discussion on the topic. The lesson frequently exposes students to academic language related to budgeting. Students use such language to discuss various parts of the lesson, either as a class or with a partner or small group.

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, Lesson 6's "TEKS Practice" section asks students to explain how they can use a graph to find the constant rate of change. Students then explain what the rate of change represents. The materials expect students to write out their answers using academic language.

The grade 7 materials include embedded educator guidance to first scaffold and support, and then extend students' use of academic vocabulary through communication with others across lesson activities. For example, in Unit 3, Lesson 20's "Introduction" section, students explore nets of three-dimensional figures through detailed visuals, discussion questions, and vocabulary support. In the "Modeled Instruction" section, students compare the features of a rectangular prism and its net. Students use mathematical vocabulary such as *face, edge, net,* and *base*. A "Hands-on" activity recommends that students play a game to determine shapes after giving them specific clues (e.g., "I am made up of two parallel triangles and three rectangles"). The "Guided Practice" section includes multiple "Pair/Share" questions. These questions require students to explain how to find surface area and how using a net can help them find the total area of multiple faces on a figure.

Some extension activities in the Teacher Toolbox contain center activities to support and extend students' use of academic vocabulary. For instance, Lesson 15's "Student-Led Activity" (titled "Use Angle Vocabulary") gives students a word bank and sentence frames. Students can use these to practice the new vocabulary they learned during the lesson.

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

The grade 7 lesson activities include embedded guidance to support students' application of appropriate mathematical language and academic vocabulary in discourse. The "Introduction" activities in each lesson offer various structures for academic discourse. For example, in Lesson 6, students explore, discuss, and compare parts of a ratio table to reinforce vocabulary regarding the constant of proportionality and unit rate. Teachers then extend students' use of this vocabulary through the "Concept Extension" and "Mathematical Discourse" sections, allowing students to better understand the term *constant* and discuss the connection between the unit rate and constant of variation.

The "Connect It" section in each lesson's "Guided Instruction" component supports students in using appropriate mathematical language and academic vocabulary as they work with a partner to solve and

evaluate problems. In Lesson 9, the materials guide students to discuss and solve the "Connect It" problems with a partner. Students work with mathematical language describing percent change relationships (such as *bar model, percent increase, percent decrease, percent error,* and *proportion*). Students then share their ideas from this experience with the whole group.

In grade 7, the *Ready Texas Mathematics Teacher Resource Book* prompts students to explain and justify their answers using precise mathematical vocabulary during oral and written discourse. In Lesson 12's "Modeled Instruction" section, the "Mathematical Discourse" prompt requires students to describe the advantages of each method for solving an equation, decide which method they like best, and justify their answer 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 7 materials include open-ended questions that allow students to connect their mathematical reasoning and language to real-world scenarios. Students then discuss such scenarios with peers. The materials embed these opportunities in the "Hands-on Activity" and "Real-World Connections" sections, among others. For example, in Lesson 30, students share examples of fixed and variable family expenses that apply to their family situation. In Lesson 19, the "Hands-on Activity" section requires students to make poster-sized blueprints of the classroom to scale.

The materials contain open-ended questions or prompts that require students to explain their reasoning, justify their answers, or compare different methods. For example, grade 7, Unit 3, Lesson 15 includes multiple "Think-Share-Compare" activities. One of these activities asks, "How can you recognize vertical angles?" Another activity instructs students to do the following: "Talk about the problem and then write your answer together." The "Mathematical Discourse" section of the "Modeled Instruction" component includes probing questions about the total degree measure of a triangle and what happens when the size is changed.

Every section of the *Ready Texas Mathematics Teacher Resource Book* includes guidance to facilitate mathematical discussions. For example, Lesson 15 ("Problem-Solving with Angles") first requires students to explore a diagram's angles. Students discuss the diagram's characteristics using language such as *obtuse, acute, straight,* and *right angles*. Next, in the "Modeled Instruction" section, students explain how an equation relates to the sum of a diagram's angle measurements. The "Guided Instruction" prompts ask students to discuss visual models to understand vertical and complementary angles with partners. The MPS tip reminds teachers of the following: "Using 'if—then' statements may help students analyze mathematical relationships to connect and communicate mathematical ideas."

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, a Lesson 14 "Guided Practice" problem asks students to evaluate a fictional student answer: "Marjean chose D as the correct answer. What did she do wrong?" The materials then provide an exemplary answer: "Marjean may have switched 22oz and 26oz in the proportion."

The *Ready Texas Mathematics Teacher Resource Book* supports inaccurate student responses and alerts teachers to common misconceptions within answers. For example, Lesson 20's "Try It" component includes an "Error Alert" in the solutions, which alerts teachers to the following: "Students who wrote 8.500 sq in. may have confused the dimensions and found the area of the base as 50in. x 50in. = 2,500 sq in."

Lesson materials include "Error Alerts" and "Misconception Alerts" in strategic locations for assessing student thinking on problems. According to the front matter, these alerts "explain a typical computational error" and "the wrong answer it might produce." The alerts also provide "explanations to help students avoid those errors in the future or notify teachers of errors in student thinking that produce conceptual misunderstanding." For example, Unit 3, Lesson 18's "Guided Instruction" section asks students to explain how to find the area of a composite figure and then use that strategy to find the area. The "Error Alert" states the following: "Students who use the subtraction method to find the area of the triangle and rectangle must be certain to subtract the area of two small triangles and two small rectangles."

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* align to the MPS. The materials include MPS tips throughout each lesson. For example, in Lesson 3, an MPS tip states the following: "The number line is used to help students better understand the relationship between the problem scenario and the mathematical representation. To communicate reasoning using representations such as number lines, students must see that a negative number represents a decrease and a positive number represents an increase (MPS 7.1.D)."

The beginning of each lesson's overview page lists the MPS that correspond to the lesson. This page also lists the TEKS focus of the lesson. "MPS Tip" sections throughout each lesson describe how activities connect to the lesson's MPS. For example, in Lesson 23, during the "Introduction" activities, the MPS tip states the following: "Having students work in pairs allows them to evaluate and compare the approach each takes to solving the problem." The "Modeled Instruction" section states that "students are asked to use three tools: frequency table, line plot, and histogram." The MPS tip in the "Guided Instruction" section states the following: "Students use repeated trials to understand and explain simple probabilities."

The "Answering the Demands of the TEKS with Ready Texas Mathematics" section of the front matter explains the following information: "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 way throughout each lesson. The materials also include MPS tips, which provide in-depth guidance for how specific MPS connect to the lesson's content. 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 lessons on the connection of a specific MPS to a given activity. For example, Unit 2, Lesson 9 lists two MPS with the TEKS at the beginning of the lesson. The lesson also includes two MPS tips: 1) "Students are communicating mathematical ideas and using reasoning when they create and use multiple representations to model the percent increase in the number of Nassim's soccer goals (7.1.D)" and 2) "Discuss with students how important it is to display, explain, and justify mathematical ideas using precise language (7.1.G)."

Each grade 7 lesson begins with a "TEKS Focus" section in the lesson overview. This section lists the MPS in the learning pathway. The MPS tips give more information as needed within the lessons about how the MPS connect to what students are learning. For example, Lesson 2's "TEKS Focus" section lists MPS 7.1.B and 7.1.C. In the "Part 2: Guided Instruction" section, the MPS tip states the following: "Checking the signs of their answers helps students evaluate the reasonableness of their solutions (7.1.B)." The "Part 3: Guided Instruction" section states the following: "Students analyze the given information and divide fractions to determine the solution of the problem. Ask students to justify their solution by asking them what the sign of the answer means in terms of the problem situation (7.1.B)."

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 the relevant process standards and connects them to the learning objectives in "MPS Tips" sections. These tips specify the MPS that are linked to a particular activity. The tips also include educator guidance on encouraging students and reminding them of specific strategies related to the lesson.

In Lesson 5, the "TEKS Focus" section lists MPS 7.1.A, 7.1.F, and 7.1.G. The corresponding MPS tips appear in the "Introduction," "Guided Instruction," and "Guided Practice" sections, which give overviews of how the lessons integrate process standards. For example, the materials state the following: "Students analyze mathematical relationships and make connections (7.1.F) as they describe the patterns found on the double number line and in the related ratios."

In Lesson 8, the "TEKS Focus" section lists MPS 7.1.A, 7.1.B, and 7.1.D. In the "Part 2: Guided Instruction" section, the MPS tip for 7.1.D (including 7.1.A) states the following: "Students use visual and algebraic mathematical models to solve problems arising in everyday life." In the "Part 3: Modeled Instruction" section, the MPS tip gives the following overview of 7.1.B: "Discuss with students the importance of analyzing the given information to develop a strategy." In the "Part 3: Guided Instruction" section, the MPS tip provides further guidance on 7.1.B: "Some problems do not provide all of the information, and students need to figure out additional information before writing and solving an equation. Encourage students to spend a few moments identifying what they know and what they need to know before developing a plan or strategy to solve the problem."

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* provides 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 students' conceptual understanding and promote connections across mathematical ideas. The "TEKS Practice" section allows students to engage with open-ended questions that require reasoning and justification. For example, in Unit 3, Lesson 21, which covers the volume of solids, the "Introduction" section requires students to think mathematically and make sense of math. This section includes an "Explore It" component, which shows how two triangular prisms fit together to form a rectangular prism. After describing the rectangular prism, finding the dimensions, and then finding the volume, students discuss the following prompt: "How could you find the volume of the triangular prism you started with? Explain." Students use this relational understanding to solve one of the "TEKS Practice" problems, which involves a partially filled rectangular prism and an empty triangular prism. Since the problem requires students to transfer a portion of a liquid to an empty solid, it involves multiple steps for students to persevere in solving problems.

In Lesson 6's "TEKS Practice" section, students persevere independently to complete a performance task. Students show how a square's side length and perimeter are related. Students analyze the data, explaining how they know the two quantities are proportional. Students also find the rate of change between the two quantities, explaining in writing what the rate of change means in terms of the situation.

In the Teacher Toolbox, supplemental activities for each lesson extend and enrich students' mathematical sense-making. For example, in Lesson 4: Solve Problems with Rational Numbers, students think mathematically and make sense of approximating solutions to expressions containing various rational numbers. The goal of this work is for students to estimate the answer to one of the expression cards. Students ask another player if they have a card with that approximate value. Since all players must

check that others' matching pairs are correct, this activity provides students with opportunities to persevere through solving problems.

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

In Lesson 32, students learn different ways to solve problems that involve simple interest. In the "Guided Instruction" section, students create an interest bar model, then use the model and the formula to find the amount of simple interest paid. The MPS tip states the following: "Creating a bar model and connecting it to the formula for simple interest provides students with an opportunity to create and use representations to organize, record, and communicate mathematical ideas." Students first think about the purpose of writing the interest rate as both a percent and a decimal. They then discuss this purpose with a partner. Last, students discuss and compare how the interest rate, the model, and the formula are related.

The 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 21, the "Visual Model" activity requires students to build rectangular prisms with cubes. The teacher prompts students to explain methods for finding the volume of their prisms. The materials expose students to multiple ways for understanding and explaining the volume, including counting the blocks one by one (which would be tedious), figuring out the number of blocks in one layer and multiplying by the number of layers, and using the volume formula. Students connect the methods of multiplying the number of blocks in one layer by the number of layers and the volume formula.

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 "Think-Share-Compare" routines embedded in teacher instructions, most lessons also include four "Pair/Share" prompts for students in the "Guided Practice" section of the *Ready Texas Mathematics Student Instruction Book*. For example, in Lesson 16, a "Pair/Share" question prompts students to discuss the following question: "What is another proportion that you could set up to show that the two triangles are similar?"

The *Ready Texas Mathematics Teacher Resource Book* is designed to support students in mathematical sense-making through multiple opportunities for students to do, write about, and discuss math with peers and/or educators. For example, in Lesson 26, students explore different data representations. In the "Concept Extension" section, teachers divide the class into two halves. One half uses a bar graph, while the other half uses a circle graph to find the percent of students who chose each sport in a survey. Students then discuss and compare the process they used. Later, in the "Guided Instruction" component, students work on problems and write out explanations in the "Connect It" and "Try It" sections.

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 and include answers as well as key topics to listen for in student responses." For example, in Unit 3, Lesson 16, the "Mathematical Discourse" section prompts the educator to ask students the following: "You have also learned about rate, which is a ratio between two measurements with different units. What are some examples of unit rates?"

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 26, students use bar and circle graphs to compare categorical data. These visual models allow students with varying backgrounds, strengths, and readiness levels to engage meaningfully with the lesson. In the "Guided Instruction" section, students work together on a "Connect It" activity to explore a bar graph and discuss how to make ratios of the data to find percents. Then, students compare methods and solutions as a group. In the "Modeled Instruction" component, the "Mathematical Discourse" section requires students to explain and justify how they would find a percent without using a proportion. In the "Guided Instruction" section, students justify in writing how the wording of the problem would change to include samples that weigh 1.5 grams. Students then explain their thinking with a partner.

The materials support educators in guiding students to share their problem-solving approaches, including explanations and justifications. For example, Unit 2, Lesson 9's "Guided Instruction" section includes problems for students to explain proportional relationships in percent change situations. Students must justify why the original purchase price would be in the denominator for a percent change proportion. The lesson provides the following educator guidance: "Have volunteers explain why the denominator is always the whole."

The "TEKS Practice" problems offer opportunities for students to show their understanding of a concept by providing multiple entry points into solving problems. Students share their problem-solving strategies, including arguments. For example, in Lesson 19, one of the "TEKS Practice" problems asks students to argue for and justify why one of the answers is correct. Another problem shows a diagram of two scale figures, asking the following: "Tomas is designing the shapes shown to use as a company logo. He says that Figure A is a scale of Figure B. Is he correct? Explain." 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 for educators to use error analysis tasks. The "Assessment and Remediation" section includes error guidance and ways to remediate student responses and misconceptions. For example, after Lesson 20 gives students a visual model of a rectangular prism and its net, the lesson asks students to find the surface area of a rectangular prism. The "Assessment and Remediation" section prompts the teacher to address students differently depending on their answers and methods.

The *Ready Texas Mathematics* front matter describes the "Error Alert" and "Misconception Alert" sections. According to the materials, these alerts "explain a typical computational error" and "the wrong answer it might produce." The alerts also provide "explanations to help students avoid those errors in the future or notify teachers of errors in student thinking that produce conceptual misunderstanding." Most lessons include at least one type of alert. For example, in Lesson 19, a "Student Misconception Alert" guides the educator to watch for students who may use the wrong operation when converting units. This alert states the following: "Remind students that multiplying a number by a factor less than one gives a product that is smaller than the number." Lesson 15 includes three error alerts. One contains educator guidance to remind students to start at 0° when reading a protractor.

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 Lesson 10, one of the "Guided Practice" problems includes an educator prompt that states the following: "Explain to students why the other two answer choices are not correct: B is not correct because the cost of the meat and cheese was subtracted and not added. D is not correct because the given amounts were added and used as the coefficient (DOK 3)." Another question guides the educator about a solution: "The equation $y = 14x + 7$ represents the situation, so D is not true."