McGraw Hill LLC

English Mathematics, Algebra I

Texas Algebra 1

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Full-Subject, Tier-1	**9781266859120**	**Both Print and Digital**	**Static**

Rating Overview

TEKS SCORE	ELPS SCORE	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	100%	5	Flags Not in Report	Flags in Report	0

Quality Rubric Section

RUBRIC SECTION	RAW SCORE	PERCENTAGE
1. Intentional Instructional Design	28 out of 28	100%
2. Progress Monitoring	26 out of 26	100%
3. Supports for All Learners	27 out of 27	100%
4. Depth and Coherence of Key Concepts	19 out of 19	100%
5. Balance of Conceptual and Procedural Understanding	39 out of 41	95%
6. Productive Struggle	22 out of 22	100%

Breakdown by Suitability Noncompliance and Excellence Categories

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

SUITABILITY EXCELLENCE FLAGS BY CATEGORY	IMRA REVIEWERS
Category 2: Alignment with Public Education's Constitutional Goal	3
Category 6: Promoting Sexual Risk Avoidance	0

IMRA Quality Report

1. Intentional Instructional Design

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

1.1 Course-Level Design

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

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

Within the Scope and Sequence, the Texas Essential Knowledge and Skills (TEKS) process standards and English Language Proficiency Standards (ELPS) are listed by lesson, along with the concepts taught in the course.

The ELPS are indicated at the beginning of each chapter at the top of the "Scope and Sequence" document, and TEKS are indicated for each activity/lesson. For example, in Chapter 2, Lesson 3-1: "Graphing Linear Equations," the TEKS indicated are A.2(B) and A.3(C). Objectives for each lesson are clearly stated, demonstrating the concepts taught in the course.

1.1b – Materials include suggested pacing (pacing guide/calendar) to support effective implementation for various instructional calendars (e.g., varying numbers of instructional days – 165, 180, 210).

The Pacing Guide breaks down the content by "Focal Areas" and then further into chapters and lessons. The Pacing Guide also provides date ranges for the successful completion of each chapter; for example, Chapter 1, "Expressions, Equations, and Functions," is allotted 15-16 days for completion.

TEKS for each chapter are also provided in this location. For example, Chapter 2 of the Pacing Guide references TEKS A.5(A) and A.12(E).

The materials include guidance for various instructional calendars in the Pacing Guide, providing ranges for days to complete each chapter. The "Scope and Sequence" documents provide instructional calendars for 135 and 144 days of instruction.

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

The "Planning Information" for each chapter references the TEKS from previous courses as background knowledge for students.

The lessons list the concepts students learn as well as the TEKS for upcoming chapters and lessons, alerting teachers as to when the current content will again be referenced. For example, the "TEKS Skills Trace" for Lesson 1-3: "Properties of Numbers," lists past skills such as 8.8(A) ("Then"), current ("Now"), and future skills to be taught ("Next"). The lessons also specify the standard addressed in the current lesson and future skill progression.

The "Algebra 1 Chapter Order Rationale" document provides explanations for the order of each chapter as well as how specific concepts introduced in each chapter connect across the course, describing how the chapters are ordered strategically to first build foundational skills, then progress to complex concepts, and ultimately to real-world applications of the learned skills.

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

The "Texas Math 6–12 Lesson Internalization Protocol" document provides detailed instructions for educators to prepare for each lesson. For example, Step 1 suggests that educators "Identify the lesson's purpose and objective," listing actions needed to complete this step.

The internalization protocol also provides specific steps for internalization of each chapter prior to instruction. For example, Step 1 suggests that teachers "identify the chapter's purpose, objectives, essential question, and pacing." Subsequent steps guide teachers to locations of resources, identify pacing for each lesson in the chapter, summarize objectives and their connections across the chapter, and identify "Essential Questions" and "Big Ideas."

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

The "Texas Math 6–12 Lesson Internalization Guide for Instructional Leaders" document provides specific resources and support for instructional leaders to assist in implementation of the materials. The guide provides a structured approach to "ensure clarity in lesson objectives, mastery of lesson structure, and preparation for rigorous mathematics instruction."

The internalization guide also supports teachers in identifying lesson purposes and objectives, understanding lesson structure, and facilitating preparation for rigorous instruction, organizing and rehearsing lessons, and providing feedback.

1.2 Unit-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.2a	All criteria for guidance met.	2/2
1.2b	All criteria for guidance met.	2/2
—	**TOTAL**	4/4

1.2a – Materials include comprehensive unit overviews that provide the background content knowledge and academic vocabulary necessary to effectively teach the concepts in the unit.

The "Teacher Notes" of the eBook provide a "Mathematical Background" section before each chapter, indicating which mathematical skills will be covered in that section.

A set list of TEKS, broken into sections labeled "Then," "Now," and "Next" in the "Teacher Notes" specifies what background knowledge students need before entering each chapter and how the skills attained through the completion of the chapter connect to the next.

The materials provide readiness quizzes and vocabulary, in addition to the TEKS and ELPS that are addressed in the chapter.

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

The materials offer family letters in both Spanish and English for each chapter . These letters outline the concepts that will be introduced in the upcoming chapter, instructions for online access to the materials, and suggestions for troubleshooting and supporting the student at home.

The family letters list specific, targeted questions for families to ask their students to advance problem-solving skills, identify key information, and learn from their mistakes. The materials emphasize the family as a partner in their student's learning, providing strategies to overcome learning obstacles and encouraging discourse to address difficult concepts.

1.3 Lesson-Level Design

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

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

The "Algebra 1 Lesson Overview" document includes guidance for each lesson that outlines the objective, the essential question, the TEKS addressed, materials needed for the lesson, and a suggested timeline for each lesson component.

The beginning of each lesson in the eBook includes lesson plans, complete with associated daily objectives as well as the TEKS and ELPS covered in the lesson.

The eBook also provides guiding questions, student tasks with teacher support, practice tests, and scaffolded supports. For example, Lesson 6-3 of the eBook provides guiding questions in the "Scaffolded Supports" section: "Ask, Why does the system $x + y = 12$ and $x - y = 4$ represent the situation?" and "Why is y eliminated when you add $x + y = 12$ and $x - y = 4$?" This lesson also features an informal, six-question" Check Your Understanding" assessment.

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

The "Algebra 1 Lesson Overview" document includes guidance for each lesson that outlines the objective, the essential question, the TEKS addressed, the materials needed for the lesson, and a suggested timeline for each component of the lesson. For example, Lesson 4-3 lists the objective as "Write equations of lines in point-slope form." The essential question for this lesson is "Why is math used to model real-world situations?" The lesson overview lists A.2(B) and A.2(C) as the TEKS that are addressed in the lesson, and the materials needed for the lesson are the eBook, journal or scratch paper, and a pencil. Teachers can use the given timing of the lesson components, such as the "Launch" component for 10 minutes, the "Teach" component for 15 minutes, the "Practice" component for 15 minutes, and the "Assess" component for 5 minutes.

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

The materials include guidance on effectively using lesson materials for extended practice throughout the lesson. For example, the Chapter 1 planning information overview provides a specific response to intervention details for Tiers 1, 2, and 3: "If students miss __%, then ___."

The material also provides "Differentiated Homework Options" at the end of each lesson. These options are displayed as a chart, categorized into basic, core, and advanced levels. This chart lists the set of questions each category should complete. For example, in Lesson 7-1, the advanced category would complete Problems 58–70.

2. Progress Monitoring

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

2.1 Instructional Assessments

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

2.1a – Materials include a variety of instructional assessments at the unit and lesson level (including diagnostic, formative, and summative) that vary in types of tasks and questions.

The materials include diagnostic assessments at the beginning of each chapter to evaluate students' understanding of the essential skills needed for the chapter. For example, the Chapter 2 "Quick Check" contains 15 questions that assess student understanding of verbal and symbolic expressions, and the instructional notes indicate when these skills will be needed in the upcoming chapter.

The "Assessment Guidelines" document describes multiple formative assessments, including lesson-level "Assess Activities" and "Self-Check Quizzes." The "Assess Activities" at the end of each lesson provide opportunities to check student understanding of the lesson. Lesson 1-7's "Check Your Understanding" provides students with 19 questions to demonstrate understanding of functions. "Self-Check Quizzes" allow students to evaluate their knowledge independently and can be assigned digitally. The Lesson 4-5 "Self-Check Quiz" consists of five questions that enable students to identify their strengths and weaknesses by analyzing scatterplots and lines of fit.

Summative assessments for each chapter include versions with various question types, as well as differentiated versions for students at on-level, approaching-level, and beyond-level proficiency. For example, Chapter 7 includes two multiple-choice assessments, three free-response assessments, a vocabulary test, and an extended-response test. The materials note that the multiple-choice assessments are intended for approaching-level students, while the free-response assessments are intended for on-level students. Beyond-level students complete the extended-response assessment.

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

The "Assessment Guidelines" document defines each assessment and states its intended purpose. For example, the document states that the "Quick Check" is a formative assessment in which students demonstrate the skills needed for the chapter.

The assessment guidelines also list the "Chapter Extended Response Test" as a summative assessment and explain that the results will reveal students' problem-solving abilities and mathematical practices. The materials note that teachers should use the results to assess students' conceptual understanding and problem-solving processes.

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

The materials include teacher guidance to ensure consistent administration of instructional assessments. The "Assessment Guidelines" document defines the consistency of administration by providing insight on the purpose of each assessment, administration in the form of time limits and sequencing of assessments, materials needed, how to use the results, and the format of each assessment.

Each assessment outlined in the "Assessment Guidelines" document provides specific suggestions for utilizing results purposefully. For example, the "Self-Check Quiz" is designed to provide immediate feedback to students via automatic grading. Students should be encouraged to reflect on their results and revisit areas of struggle. Teachers can plan enrichment or remediation activities based on the scores, such as the *Personal Tutor* videos.

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

The "Quick Review" and associated diagnostic "Quick Check" for each chapter describe the individual TEKS that are addressed in the upcoming content. In the eBook, students are reviewed and assessed on their understanding of A.5(A), A.10(D), and A.11(B) to prepare for content in Chapter 8. The "Teacher Notes" indicate that A.5(A) will be used in Lessons 8-2 through 8-9, A.10(D) will be used in Lessons 8-1 through 8-4, and A.11(B) will be used in Lessons 8-2 through 8-4.

Diagnostic assessments, such as "Preparing for the Assessment Exercises," provide individual TEKS for each question, indicating content and process standards. The "Teacher Notes" for the exercises indicate that Exercise 1 is aligned with A.10(E) and Mathematical Process Standard A.1(A), Exercise 2 aligns with A.10(E) and Mathematical Process Standard A.1(B), Exercise 3 aligns with A.10(B) and Mathematical Process Standard A.1(D), and Exercise 4 aligns with A.8(A) and Mathematical Process Standard A.1(B).

Summative assessments are aligned to TEKS addressed in each chapter, as indicated in the scope and sequence. The "Chapter 2 Test" lists A.5(A), A.2(D), and A.12(E) as tested TEKS for the assessment.

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

The "Anticipation Guide" for Chapter 9 in the Teacher Dashboard requires students to agree or disagree with statements relating to quadratic functions. The materials also require students to explain in writing why they disagree with certain statements, providing low- and high-level complexity within the assignment.

The Chapter 9 "Chapter Project" requires students to design, build, and test a rocket launcher, then write a function based on data collected throughout the process. The materials also require students to evaluate the validity of their team's analysis and that of other teams, as well as perform more complex tasks.

Summative assessments for Chapter 9 include two multiple-choice assessments, three free-response assessments, a vocabulary test, and an extended-response test. The materials state that the multiple-choice assessments are intended for approaching-level students, while the free-response assessments are intended for on-level students. Beyond-level students complete the extended response assessment.

2.2 Data Analysis and Progress Monitoring

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

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

The "Assessment Guidelines" document provides guidance for instructional assessments; the "Self-Check Quiz" is recommended for assignment at the end of each lesson, for example. Based on the scores, teachers can plan additional support or enrichment activities, such as the "Personal Tutor," to address specific areas of misunderstanding.

After students complete the "Initial Knowledge Check" in *ALEKS* (Assessment and Learning in Knowledge Spaces), their results are presented to them in a pie chart, with specific shading of each section correlating to their mastery of concepts. Full mastery results are presented in darker shading, while concepts requiring remediation are indicated by lighter shading.

"Preparing for the Assessment Cumulative Review" in the eBook provides guidance on interpreting student performance at the question level. For example, each multiple-choice answer in the Chapter 2 "Preparing for the Assessment Cumulative Review" is analyzed, indicating which concepts and skills were not mastered or were applied incorrectly. If students choose answer (f) for Example 2, it is marked "correct." The guidance for answer choice (g) is "wrong end behavior for both directions," and the guidance for answer choice (h) is "wrong end behavior for moving right." The guidance for answer choice (j) is "wrong end behavior for moving left."

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

The "Teacher Notes" for each chapter offer guidance on when to assign various tasks and activities. In Chapter 9, "Organize," teachers are instructed to assign the student-built glossary and present the chapter opener. The materials offer "Intervention Planners" to help choose appropriate resources based on the student's performance on the "Quick Check"; for example, the Chapter 9 "Intervention Planner" indicates that if students miss no more than 25 percent of the exercises in the "Quick Check," the teacher should assign the "Chapter Project" per the "Assess and Practice" section.

Each lesson's "Teacher Notes" suggest additional remediation for students based on their performance on practice exercises. Lesson 3-3: "Error Analysis," includes a clarifying graphic for students who are having difficulty substituting the correct coordinates into the slope formula, for example.

The eBook includes a "Preparing for the Assessment" section coded with content and process TEKS for each lesson that requires students to apply the skills needed on Texas assessments. In Lesson 8-1: "Preparing for the Assessment" provides one worked example and two student exercises that assess A.1(B) and A.1(D). The "Teacher Notes" provide guidance for teachers to analyze student errors on the exercises. For Exercise 66, if students chose answer (a), the guidance indicates that students added the coefficients of $x2$ to the coefficients of x. If students chose answer (b), students added only two sides of the triangle. Answer choice (c) is correct, and if students chose answer (d), students found the sum of the degrees of each x term.

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 "Reports" feature provides an overview of student progress, showing how performance has changed over time and suggesting standards for focus. In the "Standards Overview," the "Domains Performance Over Time" report enables teachers to analyze progress and changes in performance over a specified period. Another report, "Standards to Focus on," provides teachers with the top five standards for remediation.

The "Reports" feature provides an "Activities Overview" that displays student performance on selected activities and assignments. Student performance on the chosen activity or assignment is displayed in a color-coded graph. For example, scores of 0-59% are displayed in red, 60-69% are displayed in orange, 70-79% are displayed in purple, 80-89% are displayed in green, and 90-100% are displayed in blue.

ALEKS provides students with tools to monitor their progress, such as the "*ALEKS* Pie Detail," which graphically represents the student's mastery of course concepts. Each wedge of the pie chart represents a concept, and the shading of the wedge suggests the level of mastery of the concept. Hovering over the pie section displays the percentage of mastery of topics within the concept.

3. Supports for All Learners

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

3.1 Differentiation and Scaffolds

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

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

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

The materials provide teacher guidance for differentiated instruction, specifically for students who have not yet achieved proficiency in grade-level content and skills. "Scaffolding Questions" are embedded in the "Teacher Notes" of the eBook, offering various levels of questioning for teachers to meet the needs of students who have not yet achieved proficiency. For example, in Lesson 4-2, the question designated for "Approaching-Level" students in Example 1 is "What information is missing in order to write this equation in slope-intercept form?"

The materials provide "Differentiated Homework Options" in the Teacher Dashboard. The options are displayed as a chart that is categorized by level: basic (approaching level), core (on level), and advanced (beyond level). The chart lists which set of questions each proficiency level should complete. For example, in Lesson 7-1, students who have not yet met proficiency complete the basic-level questions 21-57 and 65-70.

Materials include teacher guidance for differentiated, scaffolded lessons for students who have not yet achieved proficiency in grade-level content and skills. *ALEKS* offers differentiated lessons for students who have not yet achieved proficiency in grade-level content and skills. Students are provided with a personalized path that offers lessons and practice on topics not yet mastered, based on "Initial Knowledge Check" results. After students complete the "Initial Knowledge Check," their pie chart indicates topic mastery such as "Arithmetic Readiness" and "Real Numbers" with solid-color wedges, and topics not yet mastered have shaded wedges. The topics that are not fully mastered are incorporated into the student's individualized path, and *ALEKS* provides practice and instruction on those targeted topics.

3.1b – Materials include pre-teaching or embedded supports for unfamiliar vocabulary and references in text (e.g., figurative language, idioms, academic language). (T/S)

The "Teacher Notes" for each eBook chapter provide "Key Vocabulary" and a suggested mode of pre-teaching the vocabulary. In "Get Started on the Chapter," students are presented with new vocabulary words and review previously learned vocabulary. The materials suggest that teachers introduce the key vocabulary using a specific questioning routine: "Define," "Example," and "Ask." For example, one vocabulary word in Chapter 3 is *term*. Teachers will present the definition: "A *term* is a number, a variable, or a product or quotient of numbers and variables." Teachers will then provide an example for students to consider: "2 x 2 + 6*x* + 5, where each part of the expression, containing numbers and variables between operation signs, is called a *term*." Students are then asked to identify the number of terms in the given expression.

The "Student Built Glossary" in the Teacher Dashboard provides students with a list of the vocabulary words for each chapter, directing the student to list the number of the page in the book containing the vocabulary word as well as a definition or example of the word. The materials suggest that students should complete their built-in glossary as they progress through the chapter.

The "Teacher Notes" in the eBook provide embedded support for unfamiliar references. For example, the "Teaching Tip" in Lesson 2-1, Example 3 provides guidance on translating sentences and equations, offering equivalent expressions for verbal descriptions. The materials note that there are often multiple ways to translate an equation into a verbal sentence and vice versa.

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

Each lesson provides enrichment activities to help students apply concepts and build fluency when students have demonstrated proficiency. For example, Lesson 8-2 addresses multiplying a polynomial by a monomial. The "Differentiate Instruction" section of the Teacher Dashboard provides an enrichment activity that requires students to apply the concept of multiplying polynomials by monomials to pentagonal numbers. Students are also required to evaluate the expressions for specific values and use the information to create hexagonal, and tetrahedral numbers.

Differentiated instruction sections of eBook lessons provide extension practice for proficient students. For example, Lesson 3-4: "Preparing for Assessment," suggests for students who have mastered grade-level skills: "Write $y = kx2$ on the board. Tell students that y varies directly as the square of x, and $y = 48$ when $x = 4$. Ask students to find y when $x = 10$."

The examples in each lesson of the eBook include "Scaffolding Questions" for teachers to guide students at above-level, on-level, and below-level proficiency. For example, the Scaffolding Question for above-level students in Lesson 7-2, Example 1 is "What terms have the same base?"

3.2 Instructional Methods

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

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

The eBook's "Scaffolding Questions" provide direct prompts to support teachers in modeling concepts effectively. Lesson 3-2, Example 2, "Scaffolding Questions" prompts the teacher to ask, "How do you set up the problem to determine the zero?," "What does the zero mean in the context of the situation?," and "Give an example of a situation when the domain could not be all real numbers."

The "Teacher Notes, Teaching Tip" in Lesson 2-4 between Examples 3 and 4 prompts the teacher to emphasize that there are only two possible outcomes under which the variable can be eliminated from an equation: either the solution has no solution (a false statement) or the equation is an identity (a true statement).

Lesson 4-2, Example 4, "Teacher Notes, Differentiated Instruction," suggests that if students are confused by learning more than one way to write a linear equation, the teacher should have those students use the definition of slope to derive the slope-intercept form of an equation. The materials state that the logical learner does best when relating new concepts to concepts already learned.

Additionally, Lesson 5-6, Example 3, "Teacher Notes, Think About It," suggests that students may need a quick refresher on slope-intercept form before graphing inequalities.

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

Materials include teacher guidance and recommendations for lesson delivery. For example, "Additional Resources" of the main dashboard provides a "Lesson Cycle" document to guide and pace teachers through each lesson component. Also, under the "Teach" section, teachers are instructed to use the "Examples and Guided Practice" to facilitate whole-group instruction. In the third section, "Practice," teachers are instructed to use the "Critical and Creative Thinking Problems" to help develop critical-thinking and reasoning skills.

The materials incorporate written responses and explanations to justify the thinking process. Lesson 6-5: "Critical and Creative Thinking Problems," Exercise 23 requires students to formulate a system of

equations that represents a situation in their school. Students describe the method used to solve the system and explain the solution in context.

The materials incorporate hands-on explorations using math manipulatives. Each chapter provides "Explore Algebra Labs" to support student learning of the concepts presented in the lessons. In "Explore 2-3, Algebra Lab," students use Algebra Tiles to model solving multistep equations.

3.2c – Materials support multiple types of practice (e.g., guided, independent, collaborative) and include guidance for teachers and recommended structures (e.g., whole group, small group, individual) to support effective implementation.

The eBook supports multiple types of practice for practical implementation. "Guided Practice" questions are provided after each example in the lesson for students to complete with the teacher. At the end of each lesson, "Practice," "Problem Solving," and "Critical and Creative Thinking" exercises are available for students to complete independently.

The eBook guides collaborative student work during the "Explore" and "Extend" labs. Additional opportunities for collaboration are included in the Differentiated Instruction tab embedded in the "Teacher Notes." For example, in Lesson 7-1, students are encouraged to work with a partner to make a KWL Chart to discuss key terms such as *monomial*, *constant*, *exponent, base,* and *power.* The Teacher Dashboard offers explicit instructions on how to implement the lesson; for example, in the "Organize" section, teachers are instructed to assign end-of-lesson activities. The "Instruction" section provides the teacher with "Mathematical Background," instructions for launching the interactive edition of the lesson and introducing the student guide, and options for presenting concepts via *Personal Tutor* videos. Multiple options for practice are available under the "Practice" section, including formative assessments, *ALEKS*, and extra practice worksheets.

3.3 Support for Emergent Bilingual Students

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

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.3a	All criteria for guidance met.	2/2
3.3b	All criteria for guidance met.	1/1
3.3c	All criteria for guidance met.	8/8
3.3d	This guidance is not applicable to the program.	N/A
—	**TOTAL**	11/11

3.3a – Materials include teacher guidance on providing linguistic accommodations for various levels of language proficiency [as defined by the English Language Proficiency Standards (ELPS)], which are designed to engage students in using increasingly more academic language.

The materials include teacher guidance on providing linguistic accommodations tailored to various levels of language proficiency. Each lesson identifies the English Language Proficiency Standards (ELPS). Specific supports are provided for different language proficiency levels in select lessons in the eBook's "Teacher Notes." For example, Lesson 1-4 on the distributive property includes guidance for beginner, intermediate, advanced, and advanced-high students. The tasks are designed to promote increasingly complex language use: Beginning-level students are encouraged to provide examples or illustrations to introduce each vocabulary word, repeat each word, and point to visual representations. In contrast, advanced-high students are expected to use the "Interactive Question/Response" tool to discuss each example and record main ideas and details in their notes.

The materials include guidance for teachers on providing linguistic accommodations tailored to different levels of language proficiency. Chapter 9 begins with the ELPS, along with new and reviewed vocabulary in English and Spanish, accompanied by visual representations of the terms. In Lesson 9-6, Example 4, the materials provide specific guidance for teachers to support verbal-linguistic learners. Teachers are encouraged to have students write a list of tips to help someone determine which model best describes a dataset.

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

The "Algebra 1 Emergent Bilingual (EB) Supports" document provides strategies for addressing EB students' needs in specific lessons. For example, the guidance for Lesson 2-7 provides tiered strategies for students with varied language proficiency. Students in the pre-production stage of language acquisition can sort Flashcards showing different quantities and their percent changes, explaining the percent changes in their native language and translating to English using translation software. Students in the intermediate stage of language acquisition provide images to illustrate percent of change problems for other students to solve in pairs.

The "Math EB Supports" document outlines the characteristics of each proficiency level of the ELPS, as well as typical tasks and activities that students in each category can be expected to complete. Explicit ELPS integration strategies are also provided, including content and language objective integration, developing routines for mathematical discourse, and maximizing total physical responses.

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

Guidance for teachers to support emergent bilingual students in acquiring academic vocabulary through oral and written discourse is provided in the materials. For instance, Chapter 1's "Get Started on the Chapter" advises students to work with a partner to identify essential terms that prepare them for the vocabulary in the chapter, thereby supporting the acquisition of academic language through oral discourse. In the "Study Guide and Review" for Chapter 3, students are administered a "Vocabulary Check" that contains true/false vocabulary statements. False statements require students to replace the vocabulary word to make the statement true, thereby developing academic vocabulary through written discourse.

The materials include embedded guidance for teachers to support emergent bilingual students in enhancing comprehension through oral and written discourse, available in the eBook's "Teacher Notes" on differentiated instruction. For example, Lesson 2-7 materials provide support for calculating the percent of change. The tiered guidance helps students grasp academic content through various discourse forms: Beginning students derive meaning through examples such as discount signs and road grade signs; intermediate students pair up to solve percent of change problems based on an image; and advanced students write their own percent of change problems from an image and share their problems with the group, reinforcing comprehension through written discourse.

The materials include embedded guidance for teachers to support emergent bilingual students in building background knowledge through oral and written discourse. For example, in Lesson 7-5, the

"Preparing for Assessment" activity includes an "Assess: Crystal Ball" note that prompts teachers to ask students how exponential functions will connect with an upcoming lesson involving real-world growth and decay problems, supporting oral discourse. "Assess: Crystal Ball" for Lesson 8-6 suggests that teachers tell students that the next lesson is "Quadratic Equations: $ax2 + bx + c = 0$" and direct them to write about how the learning in the current lesson will connect with the next lesson, supporting written discourse.

The "Math EB Supports" offers teacher guidance to specifically include cognates in instruction to help students make cross-linguistic connections. Cognate recognition is included with suggestions of how teachers can incorporate cognates orally and in writing.

3.3d – If designed for dual language immersion (DLI) programs, materials include resources that outline opportunities to address metalinguistic transfer from English to the partner language.

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

4. Depth and Coherence of Key Concepts

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

4.1 Depth of Key Concepts

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.1a	All criteria for guidance met.	2/2
4.1b	All criteria for guidance met.	1/1
—	**TOTAL**	3/3

4.1a – Practice opportunities over the course of a lesson and/or unit (including instructional assessments) require students to demonstrate depth of understanding aligned to the TEKS.

The materials provide multiple opportunities in each chapter for students to demonstrate their depth of understanding of chapter concepts. For example, the "Chapter 8 Quick Check" evaluates prerequisite knowledge. The "Mid-Chapter Quiz" assesses the depth of student understanding for the first half of the chapter. The "Chapter 8 Test" asks students to demonstrate their knowledge and skills of quadratic expressions and equations.

Instructional materials provide opportunities in each lesson to demonstrate the depth of understanding of concepts presented. In Lesson 5-4 of the eBook, examples are paired with "Guided Practice," concluding with "Check Your Understanding," which requires students to solve and graph inequalities on a number line. The "Practice Exercises" expand on solving and graphing inequalities, providing application and problem-solving exercises.

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

Instructional materials include suggested teacher questions that progressively increase in rigor and complexity. Each lesson provides scaffolding questions that progress from understanding the question to choosing a solving method. For example, Lesson 2-1 asks students "What is the length of the race?" "What is the unknown that you want to find?" and "What operation can you perform on the number of laps to equal the length of the race?"

Examples and guided practice in each lesson progress in rigor and complexity. For example, Lesson 8-6, Example 1 begins with b and c (in $ax2 + bx + c$) as positive numbers. The rigor and complexity increase with Example 2, in which b is a negative number and c is a positive number, followed by Example 3, in which c is a negative number. Students build upon this knowledge to solve equations by factoring.

4.2 Coherence of Key Concepts

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

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

The "TEKS Skills Trace, Planning Information" section of the Teacher Dashboard outlines connections between chapters and lessons. For example, in Lesson 6-1: "Planning Information," the "Then" TEKS are A.3(C), A.3(D), A.5(A), and A.5(B). The "Now" TEKS is A.3(F), and the "Next" TEKS is A.2(I). The material provides guidance to help teachers connect concepts and skills from previous chapters and reinforce prior knowledge.

The material also includes a "Then" and "Now" section at the beginning of each lesson in the student eBook to identify the skills required for the lesson. For example, in Lesson 6-1, the "Then" statement for the student is "You graphed linear equations" and the "Now" statements are "Determine the number of solutions a system of linear equations has" and "Solve systems of linear equations by graphing."

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

The eBook provides opportunities to connect the content learned in previous courses with the current one. The "Quick Check" in Chapter 6's "Get Ready for the Chapter" recalls using coordinate geometry to identify locations on a plane (6.11). The materials note that this skill will be applied in the upcoming chapter in Lessons 6-1 and 6-5.

"Get Started on the Chapter" in the eBook also provides a "Review Vocabulary" refresher from prior courses. In Chapter 3, "Review Vocabulary" includes *origin*, *x-axis,* and *y-axis*, with definitions and graphics for each.

The "TEKS Skills Trace" outlines connections to future content. For example, the Chapter 10 "TEKS Skills Trace" section notes that the content from the current chapter is essential for mastery of G.9(A) and G.9(B) in a future geometry course.

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

The materials connect students' prior knowledge of concepts from the previous grade level to current knowledge and skills. The "Teacher Notes" at the beginning of each chapter of the eBook provide a "Mathematical Background" section to clarify concepts that students should recall to master the current lesson. In Lesson 1-1, the "Mathematical Background" notes that students should be able to recognize algebraic expressions and write them as mathematical or verbal expressions. Students should also be familiar with variables and the meaning of exponents.

Procedures from prior grade levels are connected to students' current knowledge and skills. The "Teacher Notes" in the eBook provide a "TEKS Skills Development" section that outlines previously addressed, current, and future standards associated with the lesson. Lesson 1-1: "TEKS Skills Development," notes that students addressed 8.1(F) and 8.1(G) in a previous course and will continue to follow these procedures in the current lesson.

Concepts in the current grade level are connected to new knowledge and skills. For example, in Lesson 3-1, students analyze the key features and characteristics of linear functions, and in Lesson 9-1, students analyze the key features and characteristics of graphs of quadratic functions.

The materials connect students' prior knowledge of procedures from the current grade level to new knowledge and skills. In the introduction to Lesson 2-3, "Then," "Now," and "Why?" recalls the procedures for solving one-step equations from previous lessons and applies the same procedures to solve equations with multiple operations.

4.3 Coherence and Variety of Practice

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

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

Materials provide spaced retrieval opportunities with previously learned skills across lessons. The introduction of Lesson 6-1 recalls previous skills A.3(C), A.5(A), and A.5(B), which address writing, graphing, and solving linear equations and inequalities, all noted as essential for the current lesson, which focuses on systems of equations. Example 2 requires students to graph two linear equations, and Example 3 requires students to write two equations from a verbal description, then solve and graph them.

Materials provide spaced retrieval opportunities with previously learned skills across chapters. Chapter 5, "Get Ready for the Chapter," includes a "Quick Review" that denotes skills 7.3 (evaluating algebraic expressions), 7.11 (solving single variable equations), and A.5(A) (solving absolute value equations) as skills needed for the chapter. Students are required in the associated "Quick Check" to demonstrate mastery of these previous skills.

Materials provide spaced retrieval opportunities with previously learned concepts across lessons. In the introduction of Lesson 7-4, "Then" recalls that students have previously learned laws of exponents to find products and quotients of monomials. The "Scaffolded Support" section provides questions for students over background knowledge: "What would $57.5 billion look like when written out?," "What would you have to multiply $57.5 by to get $57.5 billion?," and "How can you write 10,000,000,000 as a power of 10?"

Materials provide spaced retrieval opportunities with previously learned concepts across chapters. The introduction to each chapter includes a "Mathematical Background" section that reviews key concepts from previous lessons or courses essential to understanding the current content. Chapter 7's "Mathematical Background" notes that students should recall that exponents and exponential functions follow laws similar to those of all real numbers. Exponential growth and decay can be represented algebraically through tables or graphs, and geometric sequences are related to exponential functions and recursive formulas.

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

Materials provide interleaved practice opportunities that reinforce previously learned skills across lessons. In Lesson 5-5, Example 1, and "Guided Practice," the materials require students to solve absolute value inequalities. Solving linear inequalities and graphing the solution set on a number line is revisited from earlier lessons or courses as part of the process.

Materials provide interleaved practice opportunities that reinforce previously learned skills across chapters. Chapter 2's linear equations skills are revisited multiple times in later chapters. The indicated TEKS in the "TEKS Skill Development" in the "Now" section for Chapter 2 are noted as A.5(A) and A.12(E). These skills are applied in Chapter 3, "Linear Functions," and noted in the "Then" section.

In Lesson 3-1, Example 1, students are required to determine whether an equation is a linear equation and to write it in standard form. Writing a linear equation in standard form from slope-intercept form requires students to solve linear equations A.5(A), which is a skill learned in Chapter 2.

Materials provide interleaved practice opportunities with previously learned concepts across lessons. In Lesson 4-2, students are required to write linear equations in slope-intercept form, and in Lesson 4-3, students are required to write linear equations in point-slope form. Lesson 4-4 requires students to write and graph linear equations of parallel and perpendicular lines. The concept of slope is an integral component of all of these lessons.

Materials provide interleaved practice opportunities with previously learned concepts across chapters. Concepts from Chapter 7, "Exponents and Exponential Functions," are essential for the following chapter, "Quadratic Expressions and Equations." In the introduction to Chapter 8 of the eBook, "Then" notes that students have already applied the laws of exponents and explored exponential functions. Lesson 8-2 and Lesson 8-3 apply these concepts when multiplying polynomials.

5. Balance of Conceptual and Procedural Understanding

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

5.1 Development of Conceptual Understanding

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

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

The materials include questions and tasks that require students to interpret and evaluate models and representations for mathematical concepts and situations. The introduction to each lesson in the eBook includes a "Why?" section; for example, Lesson 6-2 presents a scenario and an image for students to consider, accompanied by guiding questions from the teacher. The "Scaffolded Support" questions in the "Teacher Notes" for this lesson are "What are the rates of decrease for Movies A and B?"; "If x = the number of weeks from the opening week, and y = total earnings, what equation represents the earnings in week x for Movie A?"; and "Why might solving the system of equations using substitution be better than graphing the equations to determine when the movies have the same earnings?"

In the eBook, the "Critical and Creative Thinking Problems" provide opportunities for students to analyze models and representations of mathematical concepts. Lesson 9-2, Exercise 42, "Critical and Creative Thinking Problems" requires students to write quadratic equations for functions with one double root, one rational nonintegral root, and one integral root, as well as two distinct integral roots that are additive opposites.

Lesson 7-5 in the eBook provides examples and guided practice for students to interpret models and representations of exponential functions. Example 3 provides an example of an exponential function illustrating worldwide consumption of soft drinks over time in liters. The students are asked to find and interpret the y-intercept and the equation of the asymptote. The y-intercept in this example is 179, representing the consumption (in billions of liters) worldwide in the year 2000. The asymptote, $y = 0$, indicates that the annual consumption cannot be less than 0 liters.

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

The materials provide "Chapter Projects" at the beginning of each chapter on the Teacher Dashboard under the Assess and Practice tab. These projects require students to create models and apply concepts learned in a real-world context. For example, the "Chapter Project" for Chapter 5 requires students to use

data to develop a mathematical model for a plan to maximize the number of animals that can be fed at an animal shelter.

Each lesson includes "Critical and Creative Thinking Problems" that require students to create models to represent mathematical situations. For example, in Lesson 9-2, Exercise 41 states: "Describe a real-world situation in which a thrown object travels in the air. Write an equation that models the height of the object with respect to time, and determine how long the object travels in the air."

The materials require students to create models to represent mathematical ideas in the examples and guided practice within each lesson. In Lesson 9-1, Example 6 presents a quadratic function based on the launch of T-shirts into a crowd at a sporting event. Students are required to identify key characteristics of the function, create a graphical representation, and interpret these characteristics in the context of the problem.

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

Lessons in the eBook provide opportunities for applying conceptual understanding of slope in new situations. In Lesson 3-3, students determine the slope and rate of change given two points on a coordinate plane. In Lesson 4-2, students build on this foundational knowledge by learning to write equations in slope-intercept form using two specified points. Students also use this knowledge to write equations for real-world problems, such as modeling the cost of a gym membership.

The "Enrichment" activities for each lesson provide opportunities for students to apply conceptual understanding to new problem situations and contexts. The Lesson 5-6 "Enrichment" activity in the Teacher Dashboard requires students to apply graphing inequalities to linear programming. The activity asks students to write inequalities based on a real-world situation and apply their learning to determine how many products of a given type should be sold to maximize profit.

The materials contain "Problem Solving" exercises in each lesson, which include questions and tasks that provide opportunities for students to apply their conceptual understanding to new problem situations and contexts. For example, in the "Problem Solving" exercises for Lesson 9-3, students extend their thinking in Exercise 29 after writing and graphing quadratic functions by considering the effect of changing parameters of the function: "If the rocks fall at the same time, how much sooner will the first rock reach the ground?"

5.2 Development of Fluency

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

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

The materials provide tasks that build automaticity in retrieving foundational skills. For example, the Lesson 7-2 "Practice" materials offer multiple opportunities to practice the foundational skills of applying the properties of exponents. Students recall these skills efficiently in later lessons. More opportunities to practice these skills are provided with "Homework Practice," "Skills Practice," and "Practice" worksheets in the Teacher Dashboard.

ALEKS provides targeted tasks that build student fluency. The program identifies areas of strength and weakness, and provides students with opportunities to build fluency in topics that require intervention. After students complete the "Initial Knowledge Check" in *ALEKS*, the program generates a personalized remediation plan based on their performance.

5.2b – Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures within the lesson and/or throughout a unit.

Students solve systems of equations using the most efficient method (substitution, elimination, graphing) in Lesson 6-5 of the eBook. Example 1 requires students to evaluate the given system of equations and select the most effective method for solving it.

The materials provide opportunities for students to practice flexibility in mathematical procedures. Lesson 8-3 "Practice" exercises include a "Think About" section in the "Teacher Notes" in which teachers are reminded that if students struggle when multiplying polynomials using horizontal multiplication methods, vertical multiplication may be a helpful option.

Accuracy in mathematical procedures is addressed in many "Guided Practice" problems. Lesson 9-2, Example 1 encourages students to verify their answers when graphing to solve quadratic equations by substituting their answers into the original equation. Example 6 provides a "Teaching the Mathematical Processes" section that prompts teachers to discuss why a graph may not give an exact answer when finding roots of quadratic functions.

5.2c – Materials provide opportunities for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy within the lesson and throughout a unit.

The materials provide opportunities for students to evaluate procedures, processes, and solutions for efficiency within the lesson and throughout a chapter.

Lesson 9-3, Example 1 in the eBook models vertical translations in quadratic functions and connects these translations to the *c* in the $y = x2 + c$ function. This approach allows students to identify vertical translations without graphing them, increasing efficiency.

The eBook offers flexibility in evaluating procedures, processes, and solutions. Lesson 3-3, Example 4 shows students multiple ways to calculate slope. For example, when given two points, students can graph the points and calculate rise over run. Students can also use the change in *y*-coordinates over the change in *x*-coordinates to find the slope or substitute values directly into the slope formula.

The eBook addresses accuracy in evaluating procedures, processes, and solutions. For instance, Lesson 6-6, Example 3 requires students to write a system of inequalities, graph the system, and test solutions to ensure accuracy. Students name one solution from the solution set and test another given solution, explaining why or why not the solution is in the solution set.

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

The "Mathematical Background" section of the "Teacher Notes" at the beginning of Lesson 6-5 in the eBook states that some methods for solving systems of linear equations are more effective for certain types of systems. The notes outline criteria to present to students, enabling them to determine the most efficient method based on the type of system.

Examples in lessons also contain embedded supports to guide students to more efficient approaches. A "Teaching Tip" in Lesson 3-3, Example 4 of the eBook prompts teachers to ask students to determine whether two points lie on a horizontal line without graphing them, providing a more efficient approach.

A "Study Tip" embedded into the text of Lesson 1-5, in which students are asked to solve an equation, suggests that when the solution to an equation is not apparent, students can substitute values for *x* and test the equation until they get a true statement. This tip provides teachers with guidance on helping students choose more efficient methods and apply reasoning to their solutions.

5.3 Balance of Conceptual Understanding and Procedural Fluency

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

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

The materials clearly outline how the conceptual aspects of the TEKS are addressed in each lesson of the eBook. Each lesson includes an overview that highlights these emphases. For instance, in Lesson 6-2: "Substitution," conceptual understanding is reinforced in the "Why?" section, which uses a real-world context related to the earnings of two movies over time.

The materials explicitly state how the procedural emphasis of the TEKS is addressed in the Teacher Dashboard. "Planning Information" provides a "TEKS Skills Trace" that outlines the TEKS already mastered, the TEKS for the current lesson, and those to be covered in upcoming lessons. "Targeted TEKS" highlighting the skills and procedures addressed in the current lesson are also provided. For example, in Lesson 9-1, "Targeted TEKS" are indicated as A.6(A), which addresses the domain and range of quadratic functions, and A.7(A), which addresses graphing quadratic functions and identifying key features of the graph.

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

The materials' questions and tasks use concrete models and manipulatives to support instruction. The "Explore 2-3 Algebra Lab" in the eBook requires students to use Algebra Tiles and an Equation Mat to solve multistep equations. In the "Problem Solving" exercises for Lesson 8-4, Exercise 56, students investigate patterns with the area of rectangles using construction paper.

The materials often use pictorial representations to reinforce concepts. The "Problem Solving Exercises" for Lesson 3-3 provide images including slopes, such as a ski hill and a descending roller coaster. The "Preparing for Assessment" exercises for Lesson 8-6 include an image of a swimming pool to support students in calculating dimensions.

The materials use abstract representations as the TEKS requires, including symbols and algebraic representations of concepts. Lesson 5-2 in the eBook addresses solving inequalities by multiplication or division. The questions and tasks in the "Guided Practice" include multiple abstract representations,

such as <, >, ≤, and ≥. In Lesson 10-4, the "Check Your Understanding" activity provides students with the opportunity to use abstract representations and symbols to solve radical equations. Algebraic and mathematical symbols such as ≈, √, and are used frequently throughout the activity.

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 materials support students in connecting concrete models to abstract concepts, as the TEKS requires. The "Explore" and "Extend" activities in the eBook connect concrete models to abstract concepts. For example, the "Teacher Notes" for the "Explore 2-3 Algebra Lab" direct teachers to ask students to discuss how the steps for solving an equation are similar to and different from the order of operations.

The materials support students' connections between representational models and abstract concepts. The "Teacher Notes" for the "Extend 1-7 Graphing Technology Lab" instruct teachers to ask students how the graph of a function relates to its corresponding table.

The "Explore Algebra Labs" in the eBook include support for students in connecting concrete models to abstract concepts. For example, Exercise 4 of "Teaching the Mathematical Processes" in the "Teacher Notes" suggests that teachers point out that a pencil is a model for a line that can be used often to explore their understanding of linear graphs.

Tasks and activities support students in making representational models to represent abstract concepts. Lesson 4-5 in the eBook includes examples of creating scatterplots to describe real-world situations; Example 2 provides students with a data table that records the number of zebra mussels in a local recreational area over time. The materials require students to create a scatterplot of the data and write an equation for the line of best fit that best represents the data.

The materials include supports for students in defining and explaining concrete models of abstract concepts. The "Explore 2-2 Algebra Lab" in the eBook requires students to use Algebra Tiles to solve one-step equations. Students model a given equation with Algebra Tiles and translate it into symbolic (algebraic) representations.

Practice exercises allow students to define and explain representational models of abstract concepts. For example, "Practice" in Lesson 4-4 of the eBook presents students with geometric figures graphed on coordinate planes. Students use their knowledge of parallel and perpendicular slopes to determine if the figures are specific shapes. Students then explain the reasoning behind their classification.

5.4 Development of Academic Mathematical Language

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

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

The "Multilingual Glossary" in "Additional Resources" allows students to select vocabulary words to obtain a definition, an option to hear the vocabulary word aloud, and a visual example—the information provided for the vocabulary term *Cartesian coordinate plane* displays a coordinate plane labeled with *x*-axis, *y*-axis, quadrants, and the origin, for instance.

"Extend 2-7 Algebra Lab" provides students with opportunities to use manipulatives to develop their academic mathematical language. The activity requires students to use paper slips to represent the scores of performers in a talent show. Students must arrange the slips of paper while exploring the difference between *percent* and *percentile*.

The eBook provides multiple opportunities for students to develop mathematical language. In select lessons, the "Differentiated Instruction" section includes language acquisition and development strategies, as illustrated in Lesson 1-4. The suggestions for language development in this lesson include having students create and use Flashcards for vocabulary terms with a partner, scanning for terms in the text, discussing meanings, and using an "Interactive Question-Response" tool to examine and record vocabulary terms.

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

"Reading Math" notes in the eBook offer insight and suggestions for effectively reading and using mathematical terms in context. The Lesson 3-1, Example 2 "Reading Math" tip offers guidance for reading and referencing *x*-intercepts and *y*-intercepts, advising students that a single number denotes the intercept, and the coordinate references its location. The tip provides an example: "The *x*-intercept 20 is located at (20,0). The *y*-intercept 30 is located at (0,30)."

The materials include "Scaffolding Questions" for most examples, many of which prompt students to use academic language in their responses. In Lesson 4-2, Example 2, the embedded "Scaffolding Questions" prompt students to use academic language to explain how slope can be found given two points and why a given slope is positive, as well as to analyze the appropriate selection of test points.

The materials provide a vocabulary routine embedded at the beginning of each chapter in the "Get Started on the Chapter" section. Under the Key Vocabulary tab in Chapter 7, the text refers to the vocabulary word *monomial*, as the teacher is prompted to define, provide an example, and ask the student to name another example of a *monomial*.

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

The materials provide guidance to support the application of mathematical language, including vocabulary. The "Study Guide and Review" in the Algebra I eBook uses vocabulary terms to support mathematical conversations; students work with a partner to complete the "Vocabulary Check" and clarify the vocabulary terms with each other in Chapter 7, for example.

The materials often include embedded guidance for modeling appropriate syntax in mathematical conversations. "Teaching Tips" that give teachers reminders and prompts are provided in select lessons such as Lesson 5-2, Example 2, in which the "Teaching Tip" advises that students should be given opportunities to practice reading sets in set builder notation aloud. The materials also note that some properties that apply to equations, such as the symmetric property of equality, do not apply to inequalities ($y < 3$ is not the same as $3 < y$).

The materials offer embedded teacher guidance to support the application of language, including discourse to support mathematical conversations, refining and using math language with peers, and developing their math language tool kit over time. The "Explore" and "Extend" labs often require collaborative partners or small groups, prompting students to discuss concepts and develop mathematical language. For example, the "Extend 1-3 Algebra Lab" requires students to work in groups of three or four to complete the activity and analyze the results together, allowing students to hear mathematical language from their peers. Students collaborate on exercises that determine appropriate rounding and accuracy decisions.

Materials include embedded teacher guidance to support the application of appropriate mathematical language to support mathematical conversations that provide opportunities for students to hear math language with peers and develop their math language tool kit over time. The "Read Aloud" feature also provides students with accurate pronunciations of academic vocabulary and models the appropriate use of these terms in context. Lesson 2-5 in the eBook suggests that students listen to the audio of the text using the "Read Aloud" feature. Partners then summarize what they have heard from each other and compile their questions together.

Materials include embedded teacher guidance to support student responses using exemplar responses to questions and tasks. Sample answers are often provided for open-ended questions, particularly in the "Problem Solving" exercises and "Critical and Creative Thinking Problems." Lesson 7-5: "Critical and Creative Thinking Problems," contains several open-ended questions, and the materials provide sample answers to guide students and teachers. Exercise 45 prompts students to explain how to determine whether a set of data displays exponential behavior. The sample answer given is "First, look for a pattern by making sure that the domain values are at regular intervals and the range values differ by a common factor."

5.5 Process Standards Connection

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.5a	All criteria for guidance met.	1/1
5.5b	The materials lack evidence of a description of how the process TEKS are connected throughout the course.	1/2
5.5c	The materials lack evidence of a description of how the process TEKS are connected throughout the chapter.	1/2
5.5d	All criteria for guidance met.	1/1
—	**TOTAL**	4/6

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

The TEKS process standards are integrated appropriately into the materials. In Lesson 7-4, the appropriate process standards are evident in a lesson on scientific notation. This lesson includes problems that require students to select techniques, such as mental math, estimation, and number sense, as appropriate, to solve them. Mental math is addressed when multiplying by powers of 10, and estimation is utilized when rounding decimals in the lesson.

In Lesson 2-1, the relevant process standards are demonstrated in a lesson on translating linear equations. This lesson includes a problem that requires students to use multiple representations to describe a table of values. The materials instruct students to describe the table in three ways: verbally, algebraically, and graphically.

The "Explore 8-5 Algebra Lab" identifies the process standard as A.1(D), in which students communicate mathematical ideas, reasoning, and implications using multiple representations. This lab requires students to work cooperatively, representing binomials using Algebra Tiles and student-created drawings to communicate operations involving binomials.

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

The "TEKS Standards Correlation" document outlines how the TEKS process standards are incorporated throughout the course. This document includes a table that lists each of the TEKS, beginning with the process standards, and identifies areas of the course in which teachers can locate lessons using any given standard. For example, process standard A.1(A) addresses applying mathematics to problems arising in everyday life, society, and the workplace. The document indicates that this standard is used throughout the text, providing Lessons 1-4, 2-8, 4-4, and 7-6 as examples.

The materials offer no evidence of how the TEKS process standards are connected throughout the course. TEKS process standards are noted for lessons; however, there is no description or indication of how these standards connect or build across the course.

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

The Teacher Dashboard provides "Teaching the Mathematical Processes" for the planning information in select lessons, outlining how the TEKS process standards are incorporated throughout the chapter. In the "Practice" section of Lesson 2-4's planning information, "Teaching the Mathematical Processes" indicates that mathematically proficient students "organize ideas" and "justify arguments." The notes go on to identify the process standards present in specific exercises and provide teacher guidance for instructing these standards.

The materials offer no evidence of how the TEKS process standards are connected throughout the chapter. While TEKS process standards are noted for lessons, there is no description or indication of how these standards connect or build across the chapter.

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

The materials include an overview of the TEKS process standards incorporated at the beginning of each lesson in the eBook under the content standards, indicated by the abbreviation "MP." In Lesson 2-5, the process standards addressed are A.1(E) and A.1(G).

After each lesson in the eBook, the materials provide a chart identifying which exercises in the lesson emphasize specific TEKS process standards. In Lesson 2-5, the "Check Your Understanding" page indicates that Exercises 61 and 63 emphasize A.1(G), for example.

The Teacher Dashboard also identifies the process standards in the "Planning Information." Lesson 9-1 records A.1(E) and A.1(F) as the targeted process standards for the lesson.

6. Productive Struggle

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

6.1 Student Self-Efficacy

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

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

The materials provide opportunities for students to think mathematically. The eBook offers "Scaffolding Questions" to prompt teachers to encourage students to think mathematically. In Lesson 11-1, Example 3, the "Below Level" question prompts teachers to ask students to consider an alternative approach to determining $x2$ when $x1$, $y1$, and $y2$ are known in inverse variation problems.

In Chapter 8 of the eBook, "Preparing for Assessment: Test-Taking Strategies" provides students opportunities to persevere through solving problems. The materials provide students with a procedure for solving multistep problems: "Step 1 Read the problem statement carefully," "Step 2 Organize your approach," and "Step 3 Solve and check." Each step includes additional tips to guide students through a procedure for effectively and efficiently solving complex problems.

Lesson 3-3, Example 2 in the eBook offers teacher tips to encourage students to make sense of quantities and their relationships in problem situations as well as relate the rate of change to the quantities a function represents. The materials also provide a "Sense-Making" section in select lessons. Lesson 2-1's "Sense-Making" prompts teachers to remind students that there are multiple ways to translate equations into sentences, for example.

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

The materials support students in understanding that there can be multiple ways to represent problems in the eBook. Lesson 2-4: "Problem Solving Exercises," requires students to represent two linear functions in a table, as a graph, and verbally, and make connections among the different representations.

The "Practice" exercises offer students opportunities for understanding that there can be multiple ways to solve problems and complete tasks. In Lesson 8-9, students are required to solve quadratic equations

algebraically in the "Practice" exercises. The directions also indicate that students should use their graphing calculators to check their answer by viewing the graph and locating the *x*-intercepts.

"Problem Solving Exercises" in Lesson 1-7 support students in explaining that there can be multiple ways to represent problems. For example, in Exercise 48, students are required to write an algebraic expression and create a graph from a description of a function. Students then explain why the graph they created is discrete or continuous in the context of the problem.

Lesson 1-4, "Scaffolding Questions," Example 1 prompts teachers to encourage students to explain alternate ways to solve the same problem. While exploring the distributive property, students explain multiple ways to determine the cost of a ticket to a baseball game, given a table with ticket prices.

The materials support students in justifying that there can be multiple ways to represent problems. Lesson 4-6, "Creative and Critical Thinking Problems," Exercise 46 provides a table of scores and ranks for snowboarders in the World Superpipe Championships. Students must find the regression line for men's and women's scores and compare and contrast the lines on a graph. Students find similarities and differences between the two lines and connect their observations across the different representations, justifying their observations with evidence from the graph.

The "Extend 6-1 Graphing Technology Lab" is introduced to students after Lesson 6-1, which addresses solving systems of equations by graphing. In the lab, students explore finding the intersection of two lines using their graphing calculator and apply this concept to solving multistep algebraic equations by considering each side of the equation as a linear function. The final question in the lab requires students to justify why they can solve an equation in the form $r = Ax + b$ by solving the system of equations $y = r$ and $y = Ax + b$.

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

The materials require students to do math with their peers and the teacher. Each lesson in the eBook requires students to work through example exercises with the teacher in "Guided Practice." In Lesson 2-8, for instance, students work through examples with the teacher to solve literal equations, justifying each step in the process for students to practice.

The "Explore 3-1 Algebra Lab" requires students to work in cooperative groups to analyze linear graphs, requiring them to write about math. Students describe the domain, range, end behavior, intercepts, and symmetry of linear functions with a partner. Students compare and contrast these characteristics among linear functions with positive, negative, zero, and no slope, and practice creating representations with given attributes in pairs.

The materials require students to make sense of mathematics through multiple opportunities for students to discuss math with peers and teachers. "Differentiated Instruction" in Lesson 7-1 indicates that students should work with a partner to complete the *k*, "What I Know," section of a KWL chart. Students seek clarification and discuss vocabulary terms together to understand expressions that contain exponents.

6.2 Facilitating Productive Struggle

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

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

The eBook provides teacher support to guide students to share their explanations of problem-solving approaches. In Lesson 9-5, Example 4, students practice using the discriminant to determine the number of solutions for given quadratic equations. The "Differentiated Instruction" section suggests that students create a riddle, poem, or other mnemonic device to remember the quadratic formula and how to use the discriminant to share with the class.

Example 3 in Lesson 11-7's "Differentiated Instruction" asks students to write their own "Key Concepts" for the lesson and share them with the class.

Teachers support students in sharing their arguments about problem-solving approaches in the materials. "Differentiated Instruction" in Lesson 9-1 suggests that teachers allow students to use a search engine to select a representative image for vocabulary terms. Students share their chosen images with the class and justify why their image represents the given term.

The materials support teachers in guiding students to share their justifications in their problem-solving approaches. In the "Explore 8-3 Algebra Lab," students work cooperatively to model multiplication of polynomials using Algebra Tiles. Exercises 7 and 8 require students to evaluate whether given statements are true or false and justify their answer with a drawing or Algebra Tiles to support their response.

Students reflect on the explanations of their problem-solving approaches in the materials. The "Scaffolding Questions" provided in each lesson often contain questions for teachers to support student reflection on problem-solving strategies. Example 1 in Lesson 2-2's "Scaffolding Questions" prompts students to reflect on how to solve the given equation and identify which property allows the required operations.

The materials support teachers in guiding students to reflect on their arguments about their problem-solving approaches. Lesson 4-2: "Critical and Creative Thinking Problems," provides opportunities for students to reflect on their problem-solving approaches through arguments. Exercise 52 requires students to give an argument for what information is needed to write the equation of a line and explain their reasoning.

Teachers guide students in reflecting on the justification of their problem-solving approaches. Lesson 8-3, Example 3, addresses using the FOIL method to multiply polynomial expressions. After finding the area of a pool deck with polynomial dimensions, students justify their answer by choosing a value for *x* and substituting it into initial expressions and the expression the students calculated as the area. The students justify their answer by confirming that the values of both cases are the same.

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

The eBook offers prompts to support teachers in providing explanatory feedback based on student responses. The Lesson 8-2 "Check Your Understanding" activity provides a "Teaching Tip" for students struggling to multiply a monomial with a negative sign. The tip suggests that teachers have students use the negative before multiplying the rest of the monomial.

Additionally, Lesson 3-3: "Critical and Creative Thinking Problems" contains a section for teachers to address common errors when working with the slope formula. If students have difficulty substituting the correct coordinates into the slope formula, the teacher can use a supplied graphic that defines where each component of given ordered pairs is placed within the formula.

The materials provide prompts to support teachers in delivering explanatory feedback based on anticipated misconceptions. For example, "Think About: Student Misconceptions" in Lesson 4-5, Example 3 addresses the use of interpolation or extrapolation when working with lines of fit. This tip prompts teachers to remind students that predictions based on equations of lines of fit are only as valid as the equations used to find them, and many predictions are possible since multiple equations of lines can be written from data points.

Example 4 of Lesson 7-1's "Think About: Student Misconceptions" identifies a common misconception of simplifying expressions with exponents: Students often simplify the variables and neglect to simplify the fractions and numbers within the expression.