IMRA Review Cycle 2024 Report

Publisher Name	Program Name
Texas Education Agency, Open Education Resources	*Bluebonnet Learning Secondary Mathematics Algebra I, Edition 1*
Subject	**Course**
Mathematics	Algebra I

Texas Essential Knowledge and Skills (TEKS) Coverage: **100%**

English Language Proficiency Standards (ELPS) Coverage: **100%**

Quality Review Overall Score: **227 / 227**

IMRA Reviewers

Flags for Suitability Noncompliance 0

Indicator	Count of Flags
1. Prohibition on Common Core	0
2. Alignment with Public Education's Constitutional Goal	0
3. Parental Rights and Responsibilities	0
4. Prohibition on Forced Political Activity	0
5. Protecting Children's Innocence	0
6. Promoting Sexual Risk Avoidance	0
7. Compliance with the Children's Internet Protection Act (CIPA)	0

Flags for Suitability Compliance 2

Indicator	Count of Flags
Alignment with Public Education's Constitutional Goal, 2.1.1	2
Promoting Sexual Risk Avoidance, 6.2	0

Alleged Factual Errors 5

Public Feedback

Flags for Suitability Noncompliance 0

Rubric Indicator	Count of Flags
1. Prohibition on Common Core:	0
2. Alignment with Public Education's Constitutional Goal	0
3. Parental Rights and Responsibilities	0
4. Prohibition on Forced Political Activity	0
5. Protecting Children's Innocence	0
6. Promoting Sexual Risk Avoidance	0
7. Compliance with the Children's Internet Protection Act (CIPA)	0

Alleged Factual Errors 0

Public Comments 3

Quality Review Summary

Rubric Section	Quality Rating
1. Intentional Instructional Design	53 / 53
2. Progress Monitoring	28 / 28
3. Supports for All Learners	32 / 32
4. Depth and Coherence of Key Concepts	23 / 23
5. Balance of Conceptual and Procedural Understanding	66 / 66
6. Productive Struggle	25 / 25

Strengths

- 1.1 Course-Level Design: Materials include a scope and sequence outlining the TEKS, ELPS, concepts, and knowledge taught in the course, with suggested pacing guides for various instructional calendars, explanations for the rationale of unit order and concept connections, guidance for unit and lesson internalization, and resources to support administrators and instructional coaches in implementing the materials as designed.
- 1.2 Unit-Level Design: Materials include comprehensive unit overviews that provide background content knowledge and academic vocabulary necessary for effective teaching and contain supports for families in both Spanish and English with suggestions for supporting their student's progress.
- 1.3 Lesson-Level Design: Materials include comprehensive, structured lesson plans with daily objectives, questions, tasks, materials, and instructional assessments required to meet the content and language standards. They also provide a lesson overview outlining the suggested timing for each component, a list of necessary teacher and student materials, and guidance on the effective use of lesson materials for extended practice, such as homework, extension, and enrichment.
- 2.1 Instructional Assessments: Materials include a variety of instructional assessments at the unit and lesson levels, including diagnostic, formative, and summative assessments with varied tasks and questions, along with definitions and purposes, teacher guidance for consistent administration, alignment to TEKS and objectives, and standards-aligned items at different levels of complexity.
- 2.2 Data Analysis and Progress Monitoring: Materials include instructional assessments and scoring information that provide guidance for interpreting and responding to student performance, offer guidance on using tasks and activities to address student performance trends, and include tools for students to track their own progress and growth.

- 3.1 Differentiation and Scaffolds: Materials include teacher guidance for differentiated instruction, activities, and scaffolded lessons for students who have not yet reached proficiency, pre-teaching or embedded supports for unfamiliar vocabulary and references in text, and guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skills.
- 3.2 Instructional Methods: Materials include prompts and guidance to support teachers in modeling, explaining, and directly and explicitly communicating concepts to be learned. They provide teacher guidance and recommendations for effective lesson delivery using various instructional approaches and support multiple types of practice with guidance on recommended structures, such as whole group, small group, and individual settings, to ensure effective implementation.
- 3.3 Support for Emergent Bilingual Students: Materials provide guidance for teachers in bilingual/ESL programs, support academic vocabulary and comprehension, and include resources for metalinguistic transfer in dual language immersion programs.
- 4.1 Depth of Key Concepts: Materials provide practice opportunities and instructional assessments that require students to demonstrate depth of understanding aligned to the TEKS, with questions and tasks that progressively increase in rigor and complexity, leading to grade-level proficiency in mathematics standards.
- 4.2 Coherence of Key Concepts: Materials demonstrate coherence across courses and grade bands through a logically sequenced scope and sequence, explicitly connecting patterns, big ideas, and relationships between mathematical concepts, linking content and language across grade levels, and connecting students' prior knowledge to new mathematical knowledge and skills.
- 4.3 Spaced and Interleaved Practice: Materials provide spaced retrieval and interleaved practice opportunities with previously learned skills and concepts across lessons and units.
- 5.1 Development of Conceptual Understanding: Materials include questions and tasks that require students to interpret, analyze, and evaluate various models for mathematical concepts, create models to represent mathematical situations, and apply conceptual understanding to new problem situations and contexts.
- 5.2 Development of Fluency: Materials provide tasks designed to build student automaticity and fluency for grade-level tasks, offer opportunities to practice efficient and accurate mathematical procedures, evaluate procedures for efficiency and accuracy, and include embedded supports for teachers to guide students toward more efficient approaches.
- 5.3 Balance of Conceptual Understanding and Procedural Fluency: Materials

explicitly state how the conceptual and procedural emphasis of the TEKS are addressed, include questions and tasks that use concrete models, pictorial representations, and abstract representations, and provide supports for students in connecting and explaining these models to abstract concepts.

- 5.4 Development of Academic Mathematical Language: Materials provide opportunities for students to develop academic mathematical language using visuals, manipulatives, and language strategies, with embedded teacher guidance on scaffolding vocabulary, syntax, and discourse, and supporting mathematical conversations to refine and use math language.
- 5.5 Process Standards Connections: Materials integrate process standards appropriately, providing descriptions of how they are incorporated and connected throughout the course, within each unit, and in each lesson.
- 6.1 Student Self-Efficacy: Materials provide opportunities for students to think mathematically, persevere through problem-solving, and make sense of mathematics, while supporting them in understanding multiple ways to solve problems and requiring them to engage with math through doing, writing, and discussion.
- 6.2 Facilitating Productive Struggle: Materials support teachers in guiding students to share and reflect on their problem-solving approaches, offering prompts and guidance for providing explanatory feedback based on student responses and anticipated misconceptions.

Challenges

- No challenges in this material

Summary

Bluebonnet Learning is a secondary mathematics program for Algebra I aligned to the Texas Essential Knowledge and Skills (TEKS) and English Language Proficiency Standards (ELPS). The instructional materials offer a structured approach to Algebra I instruction, incorporating a detailed scope and sequence that outlines the concepts and knowledge taught across various modules/topics. Each module/topic is supported by pacing guides that accommodate different instructional calendars, ensuring effective implementation regardless of the number of instructional days available. The program includes comprehensive module/topic overviews that provide essential background knowledge and academic vocabulary necessary for teaching concepts effectively.

Campus and district instructional leaders should consider the following:

- The program offers a variety of instructional assessments at both the module/topic and lesson levels, including formative and summative assessments. These assessments feature diverse tasks and questions, all aligned with the TEKS and course objectives.
- The program excels in fostering mathematical thinking, perseverance, and problem-solving among students. It encourages students to explore multiple approaches to solving problems, and

its design supports meaningful engagement with math through hands-on activities, writing, and discussions with peers and teachers.

Intentional Instructional Design

1.1	Course-Level Design	15/15
1.1a	Materials include a scope and sequence outlining the TEKS, ELPS, concepts, and knowledge taught in the course.	**5/5**
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).	**2/2**
1.1c	Materials include an explanation for the rationale of unit order as well as how concepts to be learned connect throughout the course.	**2/2**
1.1d	Materials include guidance, protocols, and/or templates for unit and lesson internalization.	**2/2**
1.1e	Materials include resources and guidance to support administrators and instructional coaches with implementing the materials as designed.	**4/4**

The materials include a scope and sequence outlining the TEKS, ELPS, concepts, and knowledge taught in the course. 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). Materials include an explanation for the rationale of unit order as well as how concepts to be learned connect throughout the course. Materials include guidance, protocols, and/or templates for unit and lesson internalization. Materials include resources and guidance to support administrators and instructional coaches with implementing the materials as designed.

Evidence includes, but is not limited to:

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

- In the Course Level Documents, Teacher Edition, the materials include a scope and sequence that includes the TEKS, ELPS, concepts, and knowledge. The Algebra I Scope and Sequence is a 165-Day pacing document that includes the concepts and knowledge taught in the course that are located in the Lesson Summary and Essential Ideas Columns.
- Each lesson includes the TEKS and ELPS covered. In module 3, topic 1, lesson 2, Literal Equations, the TEKS column list A.2B, A.3A, and A.12E. In module 3, topic 1, the ELPS listed are 1.H, 2.B, 2.C, 2.H, 3.A, 4.B, 4.D, 4.J, 5.D and 5.E.
- Each Topic includes a pacing guide that outlines the concepts and knowledge taught in the Highlights column and the TEKS aligned to each lesson.
- The Year-at-a-Glance (YAG) document found in the Course Level Documents, Teacher Edition, includes an overview of the Modules and Topics covered in the course. The number of days and the TEKS covered for each concept are listed. For example, Module 1: Searching for Patterns, lists lesson 1 "Understanding Quantities and Their Relationships" for 2 days and covers TEKS A.3C, A.7A and A.9D. The ELPS: 1.A, 1.B, 1.C, 1.E, 1.F, 2.C, 2.E, 2.I, 3.D, 3.E, 3.H,

4.C, 4.E, 4.G, 4.H, 5.B, 5.F are listed for module 1. Specific knowledge and skills and ELPS are not listed on the Year-at-a-Glance document.

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

- Under Course Level Documents, the materials include suggested pacing for two instructional calendars that outline pacing for 165 days and 150 days. Both pacing documents state, "1-day pacing = 45-minute session". On each pacing document, the TEKS are listed by lesson with the number of days for each lesson. Each topic is assigned a number of days, and within each topic, specific lessons and clusters of TEKS are assigned a specific number of days for the 150-day pacing guide and lessons that can be omitted in order to meet the 150-day pacing guide. Suggested pacing includes days for end-of-topic assessments and learning individually with skills practice.
- The Year-at-a-Glance document, found under Course Level Documents, includes each module of study and the concepts covered within each module. There is a Year-at-a-glance document for a 165-day calendar and a 150-day calendar. The topic pacing guide for the 150-Day Pacing provides more details on topic and lesson pacing with reduced days. The number of days and the TEKS covered for each concept are listed. ELPS are not listed on the Year-at-a-Glance document.

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

- The Content Organization Document, found under Program Level Resources, provides rationales for module/topic order for grades 6–Algebra 1. This document explains that "the arc of mathematics develops coherently, building understanding by linking concepts together through a logically sequenced and connected scope and sequence." Module rationales are provided for each course that "explain the benefits of the sequence of Modules and Topics and highlight the connections between concepts learned throughout the course." The Algebra I, Module 1 rationales state "This course starts with Module 1, Searching for Patterns, to focus on students' understanding of functions and their growth patterns. The first module introduces students to the function types they will explore in depth throughout this course. This trajectory engages students in understanding functions as families with defining characteristics, preparing them for the work of the remaining modules." It then goes on to give a rationale for each topic within Module 1.
- The materials include an explanation of how concepts to be learned connect throughout the course. The Content Organization Document uses icons and an icon key to explain how the concepts connect throughout the course. Concepts include Relationships between sets of numbers, Proportionality and Proportional Reasoning, Equations, Expressions, and Relationships, Data Analysis and Probability, Financial Literacy, and Geometric Relationships.

- Materials include a module overview at the start of each module in the teacher edition which describes "the mathematics developed throughout the module, how the module connects to prior learning, and how it connects to future learning." Clear connections are made between modules and the order in which they are presented. The module overview for module 2 states that in module 1 students "defined the constant of proportionality and extended their understanding of proportional relationships to understand linear relationships." The overview connects the current module to future modules and explains the rationale for the sequencing. "Students will use what they know about constant change to compare and contrast with exponential and quadratic functions."

Materials include guidance, protocols, and/or templates for unit and lesson internalization.

- Materials from the Program Level Resources include teacher module, topic, and lesson internalization protocols. Each protocol involves understanding the lesson and organizing resources to provide effective instruction.
- The Teacher Module and Topic Internalization Protocol document outlines "a step-by-step process for understanding each module and topic prior to teaching." The teacher Module Internalization Protocol document guides teachers to understand the big picture using the module overview, the scope, and sequence, and examining the arc of learning. Teachers are directed to "use the module overview, topic overview, and assessment" to "highlight, annotate, and/or record your thoughts" during the "step-by-step process" provided by the Teacher Module and Topic Internalization Protocol. "By starting with module and topic internalization, teachers can understand how each lesson fits into the big picture prior to using the Teacher Lesson Internalization Protocol."
- The Teacher Lesson Internalization Protocol guides teachers to complete a blank copy of the student handout for each lesson. The document starts with step 1, which is to "Understand the lesson purpose and objectives". Teachers use this protocol to "understand each lesson prior to teaching." Teachers are directed to "use the module overview, topic overview, and assessment" to "highlight, annotate, and/or record your thoughts" during the "step-by-step process" provided by the Teacher Module and Topic Internalization Protocol.

Materials include resources and guidance to support administrators and instructional coaches with implementing the materials as designed.

- Under Program Level Resources the materials provide a Program Implementation Guide with resources and guidance for coaches and administrators. "Administrators, instructional coaches, and educators can use this document to view the progression of the content."
- The Coach Lesson Internalization Protocol gives guidance to coaches. The Protocol directs teachers to "understand the content of the lesson and why it is important. This helps teachers analyze the student thinking required in the lesson and begin to make connections around how this thinking is developed in this current lesson and beyond."

- Program Level Resources include a Program Implementation Guide with a Year-at-a-Glance resource. "Administrators, instructional coaches, and educators can use this [YAG] document to make sure TEKS are covered at the appropriate time during the course of the school year".
- Under Program Level Resources, the Coach Observation Tool serves as an observation resource for administrators and instructional coaches. Guidance for administrators includes documenting evidence before, during, and after the classroom visit. Administrators use this observation tool to determine which teacher and student behaviors are observed during the lesson and areas of strength and improvement for post-observation meetings.

Intentional Instructional Design

1.2	Unit-Level Design	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.	**2/2**
1.2b	Materials contain supports for families in both Spanish and English for each unit with suggestions on supporting the progress of their student.	**2/2**

The materials include comprehensive unit overviews that provide the background content knowledge and academic vocabulary necessary to effectively teach the concepts in the unit. Materials contain supports for families in both Spanish and English for each unit with suggestions on supporting the progress of their student.

Evidence includes, but is not limited to:

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

- The materials include a comprehensive module overview at the beginning of each module/topic that outlines the background content knowledge necessary to effectively teach the concepts in the module/topic. The *Teacher Edition (TE)* includes a comprehensive overview of each module that lists the TEKS, explains the rationale for the name of the module, and provides a detailed list of objectives for each topic. Connections to prior learning provide background content knowledge. For example, "Module 1 Overview" includes the section "How is Searching for Patterns connected to prior learning? Students have been reasoning with quantities in previous courses and are familiar with independent and dependent quantities. They have analyzed and interpreted linear relationships."
- Materials outline further background content knowledge found in the "Module 1 Overview" as noted in the Algebra I Vol 1 *TE*: "Students have searched for patterns in previous courses. They have recognized patterns in lists, learned to extend a pattern beyond a given list, and applied a rule to determine an arbitrary value well beyond the given list. This module extends students' understanding of functions to explore specific function families."
- The topic overview found in the *TE* provides content background knowledge for the module level and includes a list of new key vocabulary terms for each topic. The definitions for some of the key terms are included in the "Topic Overview" and all definitions are included in the "Glossary" as noted in the Algebra I Vol 1 *TE*.

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

- The materials include support for Spanish-speaking families in each module and topic, providing suggestions for supporting their student's progress. The *Course Family Guide* for Algebra I found in the *Course Level Documents* of the *Student Edition*, is provided for each

topic within each module. The *Topic Family Guide* includes talking points families can use to guide their students through their learning with constructive discussion. Families receive guidance on where students have been and where students are going in each topic. Families can use the list of new key vocabulary terms provided and the bold words to find definitions quickly within the lesson.

- The materials include support for English-speaking families in each module and topic, providing suggestions for supporting their students' progress. The *Assessment Scoring Guide* for Algebra I include *Topic Family Guides* for each topic. The *Topic Family Guide* includes talking points families can use to guide their students through their learning with constructive discussion. Families receive guidance on where students have been and where students are going in each topic. Families can use the list of new key terms provided and the bold words to find definitions quickly within the lesson.
- The materials contain an *Assessment Scoring Guide* in both English and Spanish. The *Assessment Scoring Guide* "provides families with strategies they can use to support their students" and "are designed to assist families as they talk to their students about what they are learning." The guide explains the course's research-based instructional approach.
- The materials contain *Topic Family Guides*, available in English and Spanish, that detail the specific topic and "are designed to assist families as they talk to their students about what they are learning."

Intentional Instructional Design

1.3	Lesson-Level Design	34/34
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.	**30/30**
1.3b	Materials include a lesson overview outlining the suggested timing for each lesson component.	**1/1**
1.3c	Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson.	**2/2**
1.3d	Materials include guidance on the effective use of lesson materials for extended practice (e.g., homework, extension, enrichment).	**1/1**

The 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. Materials include a lesson overview outlining the suggested timing for each lesson component. Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson. Materials include guidance on the effective use of lesson materials for extended practice.

Evidence includes, but is not limited to:

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.

- The materials in the *Teacher Edition (TE)* include a comprehensive lesson plan. The lesson overview outlines daily objectives, questions, tasks, materials, and instructional assessments needed to meet the lesson's content and language standards. Teacher guidance at the start of the lesson directs teachers to "communicate the objective" and "provide a sense of direction by reading the essential question." The materials guide teachers to "assess students' understanding of the essential content of the lesson." Various assessment options are provided.
- Materials include a structured lesson plan in the form of a lesson overview found in the *TE* that outlines daily objectives, essential questions, and questions to support discourse, tasks, and materials needed to meet the lesson's content and language standards. The *Topic Pacing Guide* outline suggests days for administering various instructional assessments included with the product.
- Materials include a detailed lesson plan. The lesson overview found in the *TE* serves as a lesson plan and contains daily objectives, questions, tasks, materials, and instructional assessments needed to meet the content and language standards of the lesson. The lesson overview contains a *Topic Pacing Guide*, which lists the materials, the content standards, and objectives for the cluster of lessons. The *Topic Pacing Guide* also indicates which summative assessment to use. The lesson overview directs teachers to plan a certain amount of time for

each lesson component and provides detailed teacher guidance for leading students through the topic.

- The concepts and knowledge are provided in the "Getting Started/Facilitation Notes." This section outlines the lesson skills and offers guidance for asking questions and addressing issues in instructional assessments.
- Every lesson plan contains "Teacher Facilitation Notes" and answer keys for all student tasks and assignments. Each lesson begins with the section objectives and lists bullet points describing the objectives of the lesson. The lesson overview includes questions teachers can use to facilitate discussions while students complete tasks. Materials such as graph cards are included in the lesson, and teachers are instructed to prepare them before the lesson begins. Every lesson contains a lesson assignment at the end of the lesson and skills practice assignments to be used during "learning individually" days. "EB Student Tips" includes activities teachers can use to support students at different proficiency levels as appropriate.

Materials include a lesson overview outlining the suggested timing for each lesson component.

- Materials provide a lesson overview at the start of each lesson. The "Module Overview" provides the module pacing guide that also gives the pacing per lesson. A *Lesson Structure and Pacing Guide* is included for each lesson that outlines the number of days and minutes that should be allocated to each component of the lesson. Module 1, Topic 1, Lesson 4 Overview allocates 10–15 minutes for the "Engage" activity, 25–30 minutes for the first "Develop" activity, 20–25 minutes for the second "Develop" activity, and 15-20 minutes for the "Demonstrate" activity. This lesson is allotted 2 days.
- Materials include a lesson overview at the beginning of each lesson, which includes materials, TEKS, ELPS, essential ideas, and a pacing guide with the number of days and minutes allocated per lesson per activity.

Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson.

- Materials include a lesson overview at the beginning of each lesson in the *TE*. The lesson overview provides a list of necessary materials, including all student-facing materials needed and where the materials are located.
- Materials include a materials list. Materials like glue sticks and scissors are listed in the lesson overview. "Card cutouts are an example of lesson-embedded resources that are listed within the "Course Materials List" as well as at the start of the lesson." The materials list is a grid that indicates which student materials are necessary for each lesson within the module. For example, in Module 1, Topic 1, Lesson 2, materials such as "Scissors and Graph Cards" are listed in the lesson overview, and the location of the materials is mentioned in parentheses.

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

- Materials guide the effective use of lesson materials in the pacing guide found at the start of each of the 11 topics within the product. Lesson assignment is included at the end of the lesson. Teacher guidance on how to use lesson assignments is included. In Module 1, Topic 1, Lesson 1, guidance is included as side boxes within the lesson answer key to "use student responses to determine when to schedule Learning Individually Days. To provide additional practice labeling the axes of graphs with independent and dependent quantities, assign "Skills Practice Set B" for this lesson." This guidance refers to intervention. Guidance for the extension of activity is provided as "Challenge Opportunities" listed within the "Differentiation Strategies" of each lesson's "Teacher Facilitation Notes."
- Materials include a *Skills Practice Book*. "Each section of Skills Practice includes "Topic Practice", "Extension", and "Spaced Practice". Most problem sets meet the TEKS on grade level, similar to the corresponding lesson. Some problem sets incorporate prerequisite skills, while others provide opportunities for extension. For this reason, not all problems need to be assigned to all students. The teacher should intentionally assign specific problem sets to the class, small groups of students, and/or individual students based on data." The *Topic Family Guides* contain guidance for families on how to further support their student through additional practice at home. The materials contain questions and talking points that families can work through with their student to extend this learning and understanding.

Progress Monitoring

2.1	Instructional Assessments	24/24
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.	**12/12**
2.1b	Materials include the definition and intended purpose for the types of instructional assessments included.	**2/2**
2.1c	Materials include teacher guidance to ensure consistent and accurate administration of instructional assessments.	**2/2**
2.1d	Diagnostic, formative, and summative assessments are aligned to the TEKS and objectives of the course, unit, or lesson.	**6/6**
2.1e	Instructional assessments include standards-aligned items at varying levels of complexity.	**2/2**

Materials include a variety of instructional assessments at the unit and lesson level (including diagnostic, formative, and summative) that vary in types of tasks and questions. Materials include the definition and intended purpose for the types of instructional assessments included. Materials include teacher guidance to ensure consistent and accurate administration of instructional assessments. Diagnostic, formative, and summative assessments are aligned to the TEKS and objectives of the course, unit, or lesson. Instructional assessments include standards-aligned items at varying levels of complexity.

Evidence includes, but is not limited to:

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

- Materials include a variety of diagnostic instructional assessments and tasks at the lesson level. The *Course Implementation Guide* states, "To prepare for the upcoming lesson, use the "Prepare" section of the assignment from the previous lesson as a diagnostic tool, either as a warm-up or an exit ticket, to assess whether your students are ready for new learning." Each chapter (topic) within the *Teacher Edition (TE)* states, "The "Prepare" section of the lesson assignments and the spaced practice set of skills practice can serve as diagnostic tools. The *Course Implementation Guide* instructs teachers to "use the "Prepare" " section of the assignment from the previous lesson as a diagnostic tool, either as a warm-up or an exit ticket, to assess whether your students are ready for new learning." Questions included in the "Prepare" section at the end of every lesson are open-ended questions in Modules 1 and 2.
- Materials include a variety of formative instructional assessments and tasks at the module/topic and lesson level. Formative assessment opportunities are present throughout the course. The "Assessment Guide" found in the *Assessment TE* states, "You can use the "Performance Task" as either a formative or summative assessment." The *Course Implementation Guide* suggests using "Questions to Support Discourse," "Stamp the

Learning," "Talk the Talk," and "Essential Questions" in every lesson as formative assessment at the lesson level. Optional performance tasks are also included after certain topics/modules and can be used as formative or summative assessments. "Skills Practice Assignments" include open-ended and multiple-choice questions and can be used as formative assessments or in response to lesson formative or summative assessments. Some skills practice assignments include multi-part questions.

- Materials include a variety of summative instructional assessments and tasks at the module/topic and lesson levels. The course offers four performance tasks, each of which provides a rubric for evaluating student performance. Task 2, "Systems of Linear Equations and Inequalities" may be administered after Module 3. The *Assessment TE* contains tasks at the lesson level. The *Assessment Guide* states, "You can use the "Performance Task" as either a formative or summative assessment." Each topic contains an "End of Topic Assessment" "to measure student performance on a clearly denoted set of standards. There are three problem types students will encounter on the print assessments: multiple-choice, multi-select, and open-response questions." The types of summative assessments are "End of Topic" assessments and "Optional Performance Tasks." The "End of Topic" assessments include multiple-choice, multiple-select, open-ended, and graphing questions to align with question types in standardized assignments. The *Performance Tasks* include scenarios provided to students and student work expectations to meet the goals of the activity.

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

- Materials include definitions for the types of instructional assessments included. The *Assessments TE* outlines the types of assessment opportunities found within the progression of the lessons and module in a subheading called "Comprehensive Assessment". Each assessment type is defined in greater detail. For example, each lesson contains an " "Essential Question" that anticipates new learning. At the end of the lesson, students return to and answer the "Essential Question" to demonstrate their learning." For example, under the "Comprehensive Assessment" in the *Assessment Guide*, the document states that "ongoing formative assessments underlie the entire learning experience, driving real-time adjustments, next steps, insights, and measurements."
- Materials include the intended purpose for the types of instructional assessments included. The *Assessments TE* outlines the types of assessment opportunities found within the progression of the lessons and module/topic in a subheading called "Comprehensive Assessment." For example, each lesson contains an essential question, and teachers are directed to "Use student responses to the "Essential Question" as data to drive your instructional practice and decision making." For example, "End of Topic (Summative) Assessments" are "provided to measure student performance on a clearly denoted set of standards."
- The *Program and Implementation Guide* contains a table that outlines the different formative, and summative assessments found within the product.

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

- Materials include teacher guidance to ensure consistent administration of instructional assessments and can be found in the *Assessment Guide* at the beginning of the *Assessments TE*. Clear directions are provided for teachers in the paragraph titled "End of Topic Assessment Implementation." "Students can use a calculator when completing *Algebra I End of Topic Assessments*." Each assessment is designed so that students can complete the assessment in 45 minutes. For consistent evaluation and scoring, follow the *Topic Assessment Scoring Guide*. Each question in the assessment is worth 1 or 2 points. The guide includes the TEKS for each question, the point value, and scoring guidance.
- Materials include teacher guidance to ensure accurate administration of instructional assessments. Topic overviews include a topic pacing guide in calendar format that embeds "Skills Practice" and "End of Topic Assessment" within the topic activities and lessons. Teacher guidance in Module 1, Topic 1, "Pacing Guide" states, "This is a suggested placement [for skills practice]. Move based on student data and individual needs." Other teacher guidance in every topic pacing guide in modules 1 and 2 instructs teachers to "analyze student responses from the following embedded assessment opportunities to help assess individual needs: "Essential Questions," "Talk the Talks," "Student Self-Reflections," and "End of Topic Assessments." For students who are building their proficiency, you can assign problem sets to target specific skills. For students who have demonstrated proficiency, there are extension problems of varied levels of challenge."

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

- Materials include formative assessments that are aligned with the TEKS of the course and the objectives of the module or lesson. One of the objectives in Module 1, Topic 1, Lesson 1 is to identify the independent and dependent quantities in a scenario. Module 1, Topic 1, Lesson 1 "Getting Started" section includes examples of scenarios with independent and dependent quantities. Students are asked to circle the independent quantity and underline the dependent quantity in each situation. "Skills Practice Alignment Notes" guide teachers to "use student responses to questions 1 and 2, to provide additional practice identifying independent and dependent quantities, and assign "Skills Practice Set A." This formative assessment at the beginning of the lesson aligns with the objective of the lesson. The "Skills Practice Assignment A" begins with the objective "Determine the independent and dependent quantities in each scenario." After the objective, the TEKS is provided as a prerequisite for TEKS A.2A. Each "Skills Practice" assignment in Module 1 and Module 2 provides the aligned lesson objective and the aligned course objective. The "Skills Practice" assignment also explains that each part (A, B, Extension, or Spaced Practice) is either aligned to pre-requisites for TEKS, aligned to TEKS, or is an extension of the TEKS. The "Skills Practice Outline" provides the type of practice for each "Skills Practice" set in addition to the TEKS alignment as either topic-aligned or interleaved practice.

- Materials include summative assessments that are aligned with the TEKS of the course and the objectives of the module or lesson. Module 2, Topic 1 *Assessment Scoring Guide* includes the TEKS and course/module/topic/lesson objectives assessed in the "End of Topic Assessment." For this topic assessment, the TEKS assessed were A.2A, A.2B, A.2C, A.3A, A.3B, A.3C, A.4A, A.4B, A.4C, and A.12B. Each TEKS is accompanied by the TEKS wording verbatim. The course/module/lesson objectives in student-friendly language are included in the recommendations to support or challenge students and aligned to each question and TEKS under the "Response to Student Performance" document at the end of the *Topic Assessment Scoring Guide*.
- The *Comprehensive Assessment,* located in the *Assessments TE*, includes diagnostic assessments that are aligned to the TEKS and objectives of the lesson by allowing teachers to use the "Questions to Support Discourse" to gauge what students already know before learning new content. The "Prepare" section of the *Lesson Assignment* can also act as a diagnostic assessment and is aligned with the TEKS and objectives of the next lesson. For example, Module 1, Topic 1, Lesson 3, assignment "Prepare" states, "Sketch a graph and write an equation for each function. 1) Decreasing linear function." This is followed by Lesson 4's "Recognizing Functions by Characteristics," which aligns with TEKS A.3C, "graph linear functions..." The box in Module 1, Topic 1, Lesson 4 Activity 4.2 states, "Questions 1 and 2 present an opportunity to assess students' understanding of the essential content of the lesson. Use student responses to determine when to schedule Learning Individually Days. To provide additional practice creating equations and graphs with given sets of characteristics, assign "Skills Practice Set B" for this lesson." This statement provides evidence of a pre-assessment driving the instructional days for the module.

Instructional assessments include standards-aligned items at varying levels of complexity.

- Materials include the end-of-topic assessments that are aligned to the TEKS and objectives within the lesson and topic (which contains several lessons over a given objective). Each set of assessments assigned to a module can be found in a table in the module overview with the suggested time of administration as well as a list of the TEKS covered on the assessment. For example, the end of topic assessment for Module 3, Topic 1 "Linear Equations and Inequalities" covers TEKS A.2C, A.5A, A.5B, and A.12E. Readiness TEKS are bolded in the table.
- Materials include formative and summative assessments that are aligned to the TEKS and objectives of the course, module/topic, and lesson. T*he Assessment Guide* states, "Assessments are designed to cover the focus TEKS of the topic at the depth and rigor of the standard."
- In the Algebra I *Assessments TE*, assessments contain questions of more than two levels of complexity. For example, in the "End of Topic" assessment Module 2, Topic 2, TEKS A.3E is assessed in questions 1, 4, 5, and 6. Question 4 is multiple choice, while questions 1, 5, and 6 are open-response. Question 6 asks students to create a graph, questions 1 and 5 ask students to determine values like slope and y-intercept, and question 4 requires students to describe. There are more than two levels of complexity for which this TEKS is assessed. The *Assessment Guide* states, "When a TEKS addressed in a topic is not assessed on a topic assessment, it will be assessed to its full depth in another topic."

Progress Monitoring

2.2	Data Analysis and Progress Monitoring	4/4
2.2a	Instructional assessments and scoring information provide guidance for interpreting and responding to student performance.	**2/2**
2.2b	Materials provide guidance for the use of included tasks and activities to respond to student trends in performance on assessments.	**1/1**
2.2c	Materials include tools for students to track their own progress and growth.	**1/1**

The materials include instructional assessments and scoring information that provide guidance for interpreting and responding to student performance. Materials provide guidance for the use of included tasks and activities to respond to student trends in performance on assessments. Materials include tools for students to track their own progress and growth.

Evidence includes, but is not limited to:

Instructional assessments and scoring information provide guidance for interpreting and responding to student performance.

- Instructional assessments and scoring information provide guidance for interpreting student performance. The *Assessment Scoring Guide* lists the TEKS associated with each question or question cluster on each topic assessment. For example, the Module 3, Topic 1 assessment lists questions 1 & 6 for readiness standard A.2C and questions 2 & 5 as well as 4 & 11 for TEKS A.5A. Although questions 2, 4, 5, and 11 assess the same standard, the guidance for questions 2 & 5 differs from that of 4 & 11 based on how students performed on each pair.
- In the *Assessment Scoring Guide*, the third column contains recommendations to support students. For example, the Module 2, Topic 1 assessment lists questions 10, 11, and 12 for readiness standard A.3C. The recommendations to support students include:
    - "Review how to identify key features of linear functions.
    - Use Skills Practice Set VI.C for additional practice.
    - Review Lesson 5 Assignment Practice Question 4."
- Each "Topic Assessment" scoring guide includes the chart "Response to Student Performance" in Module 1, Topic 1, Module 1, Topic 2, Module 2, Topic 1, and Module 2, Topic 2. The chart includes each TEKS in the first column, the items aligned to each TEKS in the 2nd column, and the recommendations to respond to student performance in the 3rd column. In Module 2, Topic 1, teacher guidance to respond to student performance in Question 5 aligned to readiness TEKS A.2C includes recommendations to support learners to "review how to write linear equations in two variables given a table of values, use "Skills Practice Set VI.C" for additional practice, and review Lesson 6 assignment practice questions 1 and 2." Recommendations to challenge students include "extend student knowledge with "Skills Practice Extension Set VI."

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

- Materials in the Assessment Scoring Guide provide guidance for the use of included tasks and activities to respond to student trends in performance on assessments. The third column contains recommendations to support students based on specific clusters of problems they miss. For example, the Module 2, Topic 1 assessment recommends that teachers "review how to calculate the rate of change of a linear function from a table of values. Use "Skills Practice Set III.B" for additional practice. Review "Lesson 3 Assignment Practice" question 3 for students who miss problems 3 and 9 on the assessment.
- Each *Topic Assessment* scoring guide includes the chart "Response to Student Performance" in Module 1, Topic 1, Module 1, Topic 2, Module 2, Topic 1, and Module 2, Topic 2. The chart includes each TEKS in the first column, the items aligned to each TEKS in the 2nd column, and the guidance for the use of included tasks and activities in the 3rd column. In Module 2, Topic 1, teacher guidance for responding to student performance in question 5 (aligned to readiness TEKS A.2C) includes recommendations to support learners by reviewing "how to write linear equations in two variables given a table of values, use "Skills Practice Set VI.C" for additional practice, [and] review Lesson 6 assignment practice questions 1 and 2." A recommendation to challenge students and "extend student knowledge with" Skills Practice Extension Set VI", is also included.

Materials include tools for students to track their own progress and growth.

- Materials include tools for students to track their own progress and growth. Each topic includes a "Topic Self-Reflection" document where students rate their progress toward a specific skill. The skills are written in student-friendly language. For example, the Module 3, Topic 1 self-reflection document states, "I can demonstrate an understanding of the standards in the "Linear Equations and Inequalities" topic by solving linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides; constructing an argument to justify a solution process for a one-variable equation." The document also includes open-ended questions for students to reflect on their understanding and progress as they complete the topic. "At the end of the topic, take some time to reflect on your learning and answer the following questions:
    - Describe a new strategy you learned in the Linear Equations and Inequalities topic.
    - What mathematical understandings from the topic do you feel you are making the most progress with?
    - Are there any concepts within this topic that you find challenging to understand? How do you plan to improve your understanding of these concepts?"
- The *Algebra I Course and Implementation Guide* describes the *Topic Self-Reflection* document found at the end of every topic in the course. "The *Topic Self-Reflection* allows students to reflect on their understanding of the concepts and skills they learn in the topic. The *Topic Self-Reflection* is designed for students to reflect on their understanding of the concepts at the beginning, middle, and end of the topic so that they can track and monitor their own progress

and growth. [The teacher] can use this information to guide conversations with students about their strengths, areas for improvement, and strategies for growth. Additionally, the *Topic Self-Reflection* can highlight areas for additional practice." The *Topic Self-Reflection* document includes the topic objectives in the first column under the topic title and three columns labeled "Beginning of Topic", "Middle of Topic", and "End of Topic" in columns 2–4. These columns include circles in each box so students can "place a number in each circle from 1–3, where 1 represents "the skill is new to me", 2 represents "I am building proficiency of the skill, and skill ", and 3 represents "I have demonstrated proficiency of the skill." "

- The *Topic Self-Reflection* document includes the topic objectives in the first column under the topic title and three columns labeled "Beginning of Topic", "Middle of Topic", and "End of Topic" in columns 2–4. Module 1, Topic 2 self-reflection tracker allows students to read one of the lesson objectives, distinguishing between arithmetic and geometric sequences, and then rate between 1-3 how they felt at the beginning, middle, and end of the topic with this objective.

Supports for All Learners

3.1	Differentiation and Scaffolds	8/8
3.1a	Materials include teacher guidance for differentiated instruction, activities, and/or paired (scaffolded) lessons for students who have not yet reached proficiency on grade-level content and skills.	**3/3**
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)	**2/2**
3.1c	Materials include teacher guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skills.	**3/3**

The materials include teacher guidance for differentiated instruction, activities, and/or paired lessons for students who have not yet reached proficiency on grade-level content and skills. Materials include pre-teaching or embedded supports for unfamiliar vocabulary and references in text. Materials include teacher guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skills.

Evidence includes, but is not limited to:

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

- Materials include teacher guidance for differentiated activities for students who have not yet demonstrated proficiency in grade-level content and skills. Teacher guidance in the *Algebra I Assessments Guide* includes "us[ing] the data from scoring the [End of Topic] assessment to plan the next steps for instruction." The *Scoring Assessment Guide* includes a *Response to Student Performance* section. The response contains suggestions for supporting or challenging students using *Skills Practice*. For example, the *Response to Student Performance* in Module 2, Topic 1 *End of Topic Assessments,* suggests teachers support students that have not shown mastery in TEKS A.3C through incorrect responses in questions 10-12 by "Review[ing] to identify key features of linear functions; Use[ing] Skills Practice Set VI.C for additional practice; [and] Review[ing] Lesson 5 Assignment Practice Question 4."
- Teachers are provided with guidance for differentiated instruction to support students who need extra help with grade-level content and skills. In the *Skills Practice Overview*, teachers are instructed to assign specific problem sets to the whole class, small groups, or individual students based on data. Activities within the lesson correspond to the problem sets and are identified in the *Skills Practice* alignment notes for teachers. The provided outline in this guide helps teachers choose problem sets and problems strategically, allowing for personalized learning to meet student needs.
- The materials include teacher guidance for differentiating instruction and scaffolding lessons for students. It provides strategies like "Just in Time Support" to help students behind grade level. For instance, it suggests providing opposing scenarios to teach independence and

dependence explicitly. Additionally, it offers support by reducing the number of sequences students work with and maintaining variety to help recognize patterns representing arithmetic or geometric sequences.

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

- Materials include embedded supports for academic language in text. The lessons in Modules 1 and 2 include highlighted key terms with their definitions, which are either embedded in bold text throughout the lesson or presented as side notes. Teachers are advised to have students read the definitions aloud and explain them in small groups. For Example, Module 1 Topic 1 Lesson 3 includes the *New Key Terms* relation, domain, range, function, function notation, vertical line test, discrete graph, continuous graph, increasing function, decreasing function, constant function, function family, linear functions, exponential functions, absolute minimum, absolute maximum, quadratic functions, x-intercept, and y-intercept. The words relation, domain, and range are defined in a side box between dashed lines. The word function is defined within a paragraph. Students can look for bold terms within the text to find new key terms and their definitions. Teachers are guided in *Stamp the Learning* marginal notes to have students read definitions aloud and then explain those definitions in their own words in small groups.
- Materials include embedded supports for unfamiliar vocabulary and references in text. The differentiation strategy "Just in Time Support" in Module 2, Topic 1, Lesson 1, Activity 1.3 states, "Have students relate the terms interpolation and extrapolation with words that have the same prefixes that they already know, such as interior and exterior. Discuss how interpolation and extrapolation relate to the interior and exterior of the data points."
- Materials include pre-teaching for unfamiliar vocabulary and references in the text (e.g., academic language) in Volume 1 of the *Teacher Edition (TE)*. In the *EB Student Tip*, teachers are advised to allow students to create descriptions from terms they see, discuss with peers, and then be able to explain to the class what they did.

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

- Materials include teacher guidance for differentiated instruction for students who have demonstrated proficiency in grade-level content and skills. Teacher *Facilitation Notes* in every lesson include "Challenge Opportunity". "Challenge Opportunity" provides teacher guidance to challenge those students who have demonstrated an understanding of the lesson in progress. For example, in Module 1, Topic 2, Lesson 1, *Recognizing Patterns and Sequences*, *Getting Started*, *Differentiation Strategy Challenge Opportunity*, teachers are guided to "have students research other patterns in Pascal's Triangle, such as the hockey stick identity, the lazy caterer's sequence, and the Fibonacci numbers. Encourage students to look for these and other mathematical patterns in the world around them." In Module 1, Topic 1, Lesson 3, *Differentiation Strategy Challenge Opportunity*, teachers are encouraged to extend the activity

by having "the students create their own sequences. Have the class categorize them by increasing or decreasing, type of operation used, and infinite or finite."

- Materials include teacher guidance for differentiated instruction and extension activities for students who have demonstrated proficiency in grade-level content and skills in Volume 1 of the *TE*. In the differentiation strategies with challenging opportunities, teachers can provide students with questions that are to come in upcoming lessons. For example, in Module 1, Topic 1, Lesson 3, after students have completed their lesson on linear functions (ex. $y = 3x + 2$), teachers can give an extension lesson that requires students to write the equation using function notation and then solve for missing values given either the x or f(x) value.
- Materials provide teacher guidance for extension activities in the *Course and Implementation Guide*. Guidance in the differentiation subheading states "to support gifted and talented students or any student who is showing proficiency in a standard and is ready for a challenge and/or extension to differentiate instruction by: using embedded *Differentiation Strategies* labeled as "Challenge Opportunities"; utilizing the *Extension* section of the *Skills Practice*; scaffolding up the academic glossary by encouraging students to apply the terminology across disciplines and real-world applications; [and] using alternative grouping strategies."
- Materials include teacher guidance for enrichment activities for students who have demonstrated proficiency in grade-level content and skills. *Algebra I Skills Practice Guide* encourages teachers to consider using "some students that have achieved proficiency of the skills for a particular lesson or have already completed the *Skills Practice* assigned to them, as leaders of a specific group and/or station to help support their peers. This strategy helps students who need extra support while also developing the capacity of the students who provide assistance."
- The *Algebra I Assessments TE* includes guidance for interpreting student performance. For example, Module 1, Topic 1, End of Topic *Assessment Scoring Guide* states, "to challenge students" with question 2, they should "Extend student knowledge with *Skills Practice Extension Set III*." The materials include guidance for enrichment activities. The *Performance Tasks*, after certain modules/topics, "cover selected priority TEKS content from the course. These tasks include a rubric that you can utilize to assess individual or class depth of understanding as aligned to the TEKS."

Supports for All Learners

3.2	Instructional Methods	13/13
3.2a	Materials include prompts and guidance to support the teacher in modeling, explaining, and communicating the concept(s) to be learned explicitly (directly).	**6/6**
3.2b	Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches.	**4/4**
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.	**3/3**

The materials include prompts and guidance to support the teacher in modeling, explaining, and communicating the concept(s) to be learned explicitly. Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches. Materials support multiple types of practice and include guidance for teachers and recommended structures to support effective implementation.

Evidence includes, but is not limited to:

Materials include prompts and guidance to support the teacher in modeling, explaining, and communicating the concept(s) to be learned explicitly (directly).

- Materials include prompts and guidance to support the teacher in modeling concepts to be learned directly and explicitly. For example, in Module 3, Topic 2, Lesson 3, the teacher is prompted to model student work with the following guidance:
  - "Inserting additional steps within the shown student work.
  - Numbering the steps.
  - Visualizing the vertical orientation of Minh's work by drawing vertical arrows to make it explicit that the third line of Minh's work is determined by summing like terms in the first two lines of her work; aligning the sum of the terms, 2x, in the same column as the x's."
- Materials include guidance to support the teacher in modeling, explaining, and communicating the concept(s) to be learned directly and explicitly in the *Teacher Edition (TE)*. In Module 2, Topic 1, Lesson 5, the teacher is given instructions on what to do during the instructional strategy, "Chunking the Activity". The teacher was directed to "Check in and share" after each group discussion.
- Materials include prompts and guidance to support teachers in modeling, explaining, and communicating concepts to be learned directly and explicitly. For example, in Module 5, Topic 2, Lesson 2 on *Multiplying Polynomials*, guidance is provided to the teacher to "Communicate the objectives and new key terms to look for, tap into your students' prior learning by reading the narrative statements, and provide a sense of direction by reading the *Essential Question*."
- Materials include prompts to support the teacher in explaining the concept to be learned directly and explicitly. Teacher guidance in Module 3, Topic 2, Lesson 3, Teachers Edition, for

Activity 3.2, solving linear systems, directs the teacher to "Emphasize that any true statement, such as 0=0, 1=1, or 2=2, implies an infinite number of solutions."

- Materials provide prompts and guidance to help teachers demonstrate concepts clearly. In the *TE*, the teacher side notes provide reminders and guidance, while the "Stamp the Learning" notes emphasize the value of worked examples for explicit instruction. The *Facilitation Notes* offer prompts for questions to support student discussion. For example, in Module 2, Topic 2, Lesson 3, *TE*, teachers are provided with prompts to use with students to support discussion.
- Materials include prompts and guidance to support the teacher in explaining and communicating the concept(s) to be learned directly and explicitly. As students work, the *Look For* section in *Teacher Facilitation Notes* provides "specific language, strategies, and/or errors to look and listen for as you circulate and monitor students working in pairs or groups. You can incorporate these ideas when students share their responses with the class." For example, in Module 1, Topic 2, Lesson 3, teachers are reminded to look for arithmetic sequences written two different ways when ‘d’ is a negative value, and proper use of parenthesis when ‘r’ is a negative value as students work in groups. Teachers are guided to ask students, "How did you determine the formulas for the arithmetic sequences? The geometric sequences?"

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

- Materials include teacher guidance and recommendations for effective lesson delivery by using instructional strategies such as discourse, writing, and practice for students to demonstrate an understanding of mathematics. Each lesson culminates with a lesson assignment. Module 3, Topic 1, Lesson 1 has students "Write: Explain how you know when an equation has no solution and when it has infinite solutions." Student sample answers are provided in the *TE* to support teachers. Students also practice the skill and must justify each step in the solution method using properties of equality.
- Materials include teacher guidance and recommendations for effective lesson delivery using a variety of instructional approaches. The *Instructional Approach* section of the text contains the overall approach to the lesson cycle. This begins with the *Engage* ("Getting Started"), *Develop* ("Activities"), and then the *Talk the Talk* ("Demonstrate"). Under each subheading is a list of associated activities that the teacher could expect to see within the lesson. Teacher guidance states, "Use the *Prepar*e section of the assignment from the previous lesson as a diagnostic tool, either as a warm-up or an exit ticket to assess whether your students are ready for new learning." Questions to support student discourse are found in the lesson facilitation guide. " "Stamp the Learning" icon identifies opportunities to provide direct and explicit instruction on key concepts within the lesson." Students "self-reflect during the *Talk the Talk*," and teachers "can interpret how well they have demonstrated the learning outcomes."
- Materials include prompts and guidance to support teachers in modeling, explaining, and communicating concepts to students. For example, in the *TE*, in Module 5, Topic 2, Lesson 1, Activity 1.2 on *Interpreting the Graphs of Polynomial Functions*, guidance was provided on chunking the activity to have students read essential questions, read and discuss the introduction, group students to complete question 1, check-in and share, etc. This direction

supports teachers in delivering and facilitating the lesson using a variety of instructional approaches.

- The materials include teacher guidance and recommendations for effective lesson facilitation using a variety of instructional approaches. In the *TE,* the "Facilitation Notes" for each lesson include teacher guidance on the teacher and student actions for the *Getting Started*, *Worked Examples*, and *Talk the Talk*.

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.

- Materials support multiple types of practice to support effective implementation. Collaborative practice is represented in each lesson throughout the course. The *Course and Implementation Guide* states, "Collaborative problem solving encourages an interactive instructional model. The collaborative activities intentionally promote active dialogue centered on structured activities," and grouping strategies are highlighted throughout the book. Both "Learning Together" and "Learning Individually" days are a part of each module for students to work with the teacher in a guided practice activity and independently or in groups on additional practice assignments.
- Materials support multiple types of practice to support effective implementation in the *Course and Implementation Guide* of the *TE*. For guided and collaborative practice, the instructional materials use the "Learning Together" component. The teacher "spends time facilitating active learning so that students build their mathematical understanding and confidence in sharing ideas, listening to one another, and learning together." The "Learning Individually" component states that the teacher should have "targeted instruction to meet the needs of each student" as they work on *Skills Practice*.
- Materials include recommended structures (e.g., whole group, small group, individual) to support effective implementation in the *TE*. Every lesson has a "Chunking the Activity" and/or "Chunking the Lesson" note that prompts the teacher where to group students, when to share out, and the next steps to complete the activities. For example, in Module 4, Topic 2, Lesson 1, in the "Chunking the Activity" note, the teacher was informed to "Have students work in pairs or groups to complete questions 2–6."
- The materials support multiple types of practice and include recommended structure to support implementation. The *Course and Implementation Guide* includes notes on the side of each lesson providing recommendations on how to group students to work on specific questions and use their responses to plan for "Learning Individually Days." This is evident in Module 5, Topic 2, Lesson 2, Activity 2.4 on *Special Products When Multiplying Binomials*.
- Materials provide guidance and recommended structures to support effective implementation. In the *Assessments TE*, the materials state, "You may implement the *Performance Task* as a formative assessment by completing the tasks in collaborative groups." The materials go on to make suggestions about effective implementation for the performance task. When the teacher chooses to implement a *Performance Task* as a formative assessment, they should use the provided facilitation notes for suggested implementation strategies. When implementing the *Performance Task* as a formative

assessment, two instructional days are suggested for the task. On the first day, groups will complete the task. On the second day, groups will present the strategies they used to complete the task, and you will facilitate a collaborative discussion. The teacher can also use the Performance Task as a summative assessment. When using the *Performance Task* as a summative assessment, students complete the task individually. In this case, there is only one day suggested for completion of the task.

Supports for All Learners

3.3	Supports for Emergent Bilingual Students	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.	**2/2**
3.3b	Materials include implementation guidance to support teachers in effectively using the materials in state-approved bilingual/ESL programs.	**1/1**
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.	**8/8**
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.	**Not scored**

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

Evidence includes, but is not limited to:

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 provide teacher guidance for accommodating students at different language proficiency levels in the Algebra I Course. The guidance includes *EB Student Tips* included in the *Teacher Edition (TE)* to support EB students. These tips inform teachers of potential learning barriers, provide engaging activities for learning and assessment, reinforce mathematical language, and introduce language needed for understanding specific contexts. For example, the tips include strategies for different proficiency levels, such as using visuals for the beginning level, providing sentence frames for the intermediate level, and asking students to explain in their own words for advanced/advanced high levels.
- Materials include teacher guidance on providing linguistic accommodations for various levels of language proficiency, which are designed to engage students in using more academic language. The *Topic Overview* includes cognates for new key terms, when applicable. It also includes guidance on how to use cognates to support emergent bilingual students. For example, while introducing *Solving Quadratic Equations* in the *TE*, Module 5, Topic 3 Overview,

the *New Key Terms* include roots and their Spanish cognate raices, and discriminant with its cognate discriminante. In the *How Can You Use Cognates to Support EB Students?* section of the *Overview*, it states "Integrate technology using multimedia resources from both languages, such as videos or interactive websites. This visual and auditory exposure can solidify the understanding of cognates as students see and hear the practical use of these words in different contexts." The *EB Student Tip* also provides guidance on how to support all students based on their proficiency levels.

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

- Materials include implementation guidance to support teachers in effectively using the materials in state-approved bilingual/ESL programs. Explicit teacher support is provided in the *Course and Implementation Guide* to "Reinforce newly acquired mathematical language to gain an increasing level of comprehension of English. Introduce students to the language needed to understand a specific context. Students internalize new content language by using and reusing it in meaningful ways in a variety of different speaking activities that build concept and language attainment."
- The *Course and Implementation Guide* consists of guidance about ELPS addressed by stating, "*Highlighted English Language Proficiency Standards* for each lesson are listed. As you plan, consider these ELPS and determine the instructional strategies that you will use to meet these ELPS." Within the *Algebra I Lesson Overviews*, ELPS covered are listed with specificity. An example of this is in Module 1, Topic 1, Lesson 3. The ELPS listed to be covered are (1) *Learning Strategies C*, (3) *Speaking D & H*, and (4) *Reading C*.
- The *Program Implementation Guide* provides an overview of the embedded supports for teachers in effectively using the materials to support students in bilingual and ESL programs. It also includes a *Strategies for Supporting EB Students in Each Lesson Phase* section, which provides guidance on using EB/ESL strategies throughout the different lesson phases. The guide specifically discusses how to support each student at their level of English proficiency.

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.

- Materials include embedded guidance for teachers to support emergent bilingual students in developing academic vocabulary, building background knowledge, and making cross-linguistic connections through oral discourse. Module 2, Topic 1 Overview directs teachers to "Have students pair up and enact a role-play scenario with each student using a different language but with corresponding mathematical cognates. A potential scenario students can act out is one student pretending not to fully understand the other and using their knowledge of cognates to reconstruct and restate what the other student is saying."
- 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 discourse in the facilitation notes. The teacher is provided with discourse questions that they can use to guide lesson instruction. In Module 1, Topic 1, Lesson 2, Activity 2.1: *Identifying Graphical Behaviors*, the teacher can ask students, "In Graphs G, E, and H, describe the relationship between the point on each side of the line of symmetry."

- Materials include opportunities for emergent bilingual students to learn with oral and written discourse in the *TE*. In every lesson, teachers are given *EB Student Tips* for "every either different proficiency levels or all proficiency levels to support with learning the concepts in the lesson." The ultimate goal is for students to make connections between their native language and mathematical concepts. Teachers can play games, such as *Bilingual Bingo*, where students hear math problems in one language, and they must solve the problem in the other language.
- The Algebra I materials include academic vocabulary at the end of both the *Student and Teacher Editions*. When appropriate, the definitions contain pictorial or analytical representations of key terms. One example of oral and written proficiency is the term "axis of symmetry - The axis of symmetry of a parabola is the vertical line that passes through the vertex and divides the parabola into two mirror images.," followed by a pictorial representation of an axis of symmetry.

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

- Materials are not specifically designed for dual language immersion programs. However, the Math Glossary is provided as a pre-teaching tool and offers support for emergent bilinguals. Materials also offer explicit teacher support to help reinforce newly acquired mathematical language and to improve understanding of English over time.
- Materials include opportunities for students to internalize new content language by using and reusing it in meaningful ways in a variety of different speaking activities that build concept and language attainment. In the Algebra I *TE*, emergent bilingual tips are included to guide teachers, such as "Allow students time to identify vocabulary and create basic definitions for each group of graphs to prepare for classroom discussions." Emergent Bilingual Student Tips are provided throughout the instruction on the mini-lesson page in the Teacher's Edition to offer additional support for this student population.

Depth and Coherence of Key Concepts

4.1	Depth of Key Concepts	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.	**1/1**
4.1b	Questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards.	**2/2**

Materials provide practice opportunities over the course of a lesson and/or unit that require students to demonstrate depth of understanding aligned to the TEKS. Materials provide questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards.

Evidence includes, but is not limited to:

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

- Practice opportunities over the course of a lesson require students to demonstrate a depth of understanding aligned to the TEKS. *Talk the Talk,* found at the end of each lesson in the student textbook, is an activity that prompts students to use what they have learned in the preceding lesson and connect to the *Essential Question* from the lesson opener. Module 3, Topic 1, Lesson 1 covers solving linear equations. After completing Lessons 1.1–1.3, students are presented with the *Talk the Talk* activity, which "represents an opportunity to assess students' understanding of the essential content." This activity provides them with the dimensions of two rectangles and directs them to "write and solve an equation to determine the length, x," when both rectangles have the same area.
- Practice opportunities throughout a lesson, in both "Learning Together" and "Learning Individually" components, require students to demonstrate depth of understanding aligned to the TEKS and beyond. Embedded practice opportunities throughout lessons in Module 1 and Module 2 include multiple questions in each activity that require students to "determine," "explain," "justify," and "analyze" before creating open-ended responses. The lesson assignments at the end of each lesson also include open-ended response questions and matching questions but no multiple-choice questions. The open-ended format of embedded opportunities allows students to demonstrate a true level of understanding and allows teachers to make instructional decisions on further practice opportunities for students. The *Skills Practice* sets include a variety of practice opportunities. Students can practice open-ended multiple-part questions where they also must "explain" and "justify" their responses with words or through algebraic steps.
- The End of Topic Assessments require students to demonstrate the depth of understanding aligned with the TEKS. For example, questions 2, 4, 5, and 11 from the End of Topic Assessment in Module 3, Topic 1, assess TEKS A.5A. Questions 2 and 4 ask students to solve given equations, with question 2 having no solution. Question 5 asks students to determine if a

given equation has one solution, no solution, or an infinite number of solutions and to explain their reason, and question 11 asks students to write and solve an equation that represents a real-world scenario.

Questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards.

- Questions progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards. The teacher's *Facilitation Notes* for each lesson, located in the *Teacher Edition* ahead of each topic, contain questions for gathering and probing as students work through tasks and activities. Questions begin at the lower cognitive level, such as "What do the variables in your equations represent? Do parallel lines have the same slope? The same y-intercept?" and progressively become more rigorous until they reach the grade-level standard of the TEKS "Why does it make sense that there is no solution to this situation? Describe the graphs of these equations." "What is the equation, in standard form, for the number of tickets purchased? The total cost? What is another way to solve this system algebraically?"
- Tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards. The *Talk the Talk* task at the end of each lesson in the *Student Edition* directs students to demonstrate their understanding of the content at the level of complexity determined by the TEKS. Module 3, Topic 2, Lesson 2 *Talk the Talk* task directs students to determine the "solution to each linear system by using the substitution method" and to check their answers algebraically. The four problems in this task have a variety of solutions including ordered pairs and no solution.
- Questions progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards. One example is *Skills Practice Set A* in Module 2, Topic 1, Lesson 4. Students are asked to "use point-slope form to write an equation for a line with the given information. Then, rewrite the equation in slope-intercept form. Question 1 provides students with a positive integer slope and positive x and y-coordinates. Question 2 increases complexity by introducing an x-coordinate of 0 and a negative y-coordinate. Question 3 increases complexity by providing a fractional slope with negative x and y-coordinates, and question 4 increases complexity by providing a negative fractional slope and negative x-coordinate. Then, *Skills Practice Set B* increases rigor by providing students two points instead of a point and the slope. Students are asked to write the equation in point-slope form, but they must find the slope first. Finally, *Skills Practice Set C* provides students multiple representations of graphs and tables asking them to write the equation of the lines in point-slope form and slope-intercept form. Students must now choose the points and find the slope before performing the algebraic procedures.
- Tasks progressively increase in rigor or complexity. For example, Module 2, Topic 1, Lesson 4, Activity 4.2 asks students in question 1b to describe, then in question 1c to explain, and then in question 4c to create. "Activity 4.3 on pg. 208" asks students to identify questions 2b and 2c and then to analyze questions 3 and 4. Activity *Talk the Talk* on pg. 210 concludes the lesson by asking students to synthesize "What information can you determine about each line by looking at the structure of the equation?" in question 1 and then asks students to "create a

context that represents a linear relationship that passes through the given point then write the equation of the line" in question 2. The progression through Bloom's taxonomy levels leads to grade-level proficiency in the mathematics standards.

Depth and Coherence of Key Concepts

4.2	Coherence of Key Concepts	12/12
4.2a	Materials demonstrate coherence across courses/grade bands through a logically sequenced and connected scope and sequence.	**2/2**
4.2b	Materials demonstrate coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts.	**3/3**
4.2c	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.	**3/3**
4.2d	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.	**4/4**

Materials demonstrate coherence across courses/grade bands through a logically sequenced and connected scope and sequence. Materials demonstrate coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts. Materials demonstrate coherence across units by connecting the content and language learned in previous courses/grade levels and what will be learned in future courses/grade levels to the content to be learned in the current course/grade level. Materials demonstrate coherence 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.

Evidence includes, but is not limited to:

Materials demonstrate coherence across courses/grade bands through a logically sequenced and connected scope and sequence.

- The *Teacher Edition (TE)* contains *Module and Topic Overviews* that outline "how activities within lessons build to achieve understanding within topics and how topics build to achieve understanding throughout the course." A subheading in the *Module 3 Overview* section is "How is Modeling Linear Equations and Inequalities connected to prior learning?" The paragraph that follows highlights the connections to prior learning from previous grade levels that connect to the current content.
- The *Module 3 Overview* section of the *TE* contains a subheading titled "When will students use knowledge from modeling linear equations and Inequalities in future learning?" The paragraph below this heading explains that "Students will use what they know about solving linear equations to solve more complicated equations later in this course and in future courses. They will apply substitution to solve systems of three linear equations in three variables and systems of linear and quadratic equations in a future course."
- Materials demonstrate coherence across courses/grade bands through a logically sequenced scope and sequence. The *Content Organization Document* states, "The arc of the mathematics develops coherently, building understanding by linking concepts together through a logically sequenced and connected scope and sequence…connections are shown

visually within and between courses in the instructional materials with icons. Topics with the same icon link concepts within and across grades." For example, the icon for the concept of "equations, expressions, and relationships" is a circle and can be found in Grade 6, Module 4, where students work with expressions and one-step equations and inequalities. In Grade 7 Module 3, students work with two-step equations and inequalities. In Grade 8 Module 4, students model and solve one-variable equations with variables on both sides. In Algebra I Module 3, students solve linear equations with variables on both sides using the distributive property when necessary. In Algebra I Module 5, students expand to solving quadratic equations.

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

- The "Topic Overview" found at the start of each topic in the *TE* begins with a paragraph about how the key concepts of the topic are organized. *Topic 1 Overview* in Module 3 states, "Linear equations and inequalities has students focus on the algebraic representation of a linear function, a linear equation, or inequality." This overview points out connections between big ideas and relationships between mathematical concepts. "[Students] generalize their knowledge of solving equations in one variable to solve literal equations for given variables, enabling them to connect the meaning of the variables in the standard form and the slope-intercept form of a linear equation."
- The "Optimizing Learning " textbox appears in the *TE* and indicates where teachers should direct students to make connections in their learning. In Module 3, Topic 2, Lesson 3, the *Talk the Talk* task reviews the "three different methods for solving systems of equations." The "Optimize Learning" margin note states, "This activity highlights patterns, critical features, big ideas, and relationships."
- Materials demonstrate coherence across modules/topics by explicitly connecting relationships between mathematical concepts. One example of this explicit connection is the connecting relationships between transformations for linear and quadratic functions. Topic 2 overview *Transforming and Comparing Linear Functions* states that students will learn how linear functions behave similarly to other function types. Understanding the rules of transformations for linear functions lays the groundwork for students to transform any function type. The concept of transformations is revisited in *Module 5 Overview,* which states, "Students have explored transformations of geometric figures and function transformations with linear functions. In this module, students recognize that function transformations affect quadratic functions similarly to linear functions."

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 materials ensure coherence across modules/topics by connecting the content learned in previous courses to the current course. The *TE* provides a "Module Overview" for each module,

which describes previous learning and links it to the current instruction. For example, in *Module 2 Overview,* the understanding of functions is linked to prior learning by stating, "Students first need to understand constant change. The idea of constant change is not new for students; they have been exploring proportional and linear relationships since 6th grade."

- The *TE* provides a *Topic Overview* at the start of each topic, including a section called "What is the Entry Point for Students?" This section outlines the content and vocabulary students learned in previous courses and explains how it connects to the current course. For example, Module 2, Topic 2 overview, gives guidance on the entry point by stating, "Over the last few years, students have had extensive experience with linear relationships." It also includes a "Math Representation" of the concept discussed and a worked example showing content from a previous course.
- Materials demonstrate coherence across modules/topics by connecting the language learned in previous courses/grade levels to the content to be learned in the current course/grade level. For example, in Module 2, Topic 1 Overview, teachers will read, "Students review slope-intercept form that was developed in grade 8 and use the slope formula to derive the point-slope form. They write equations of lines, including horizontal and vertical lines, and graph lines presented in slope-intercept, point-slope, and standard forms."

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.

- Materials demonstrate coherence at the lesson level by connecting students' prior knowledge of concepts and procedures from the current grade level to new mathematical knowledge and skills. The teacher *Facilitation Notes*, found in the *TE* for each lesson, contains questions for "seeing structure." These questions guide students to discuss the big ideas of the concepts and verbalize the patterns and relationships between concepts. For Module 3, Topic 2, Lesson 2, Activity 2.1, the seeing structure questions are "How are the forms of these two equations different from the previous *Worked Example?* Why isn't it necessary to check the solution in both equations?"
- Materials demonstrate coherence at the lesson level by connecting students' prior knowledge of procedures and concepts from the current grade level and from prior grade levels. Students are provided with opportunities to review and practice procedures they have previously learned at the start of each lesson to build connections between what they have previously learned and what they are currently learning. In Module 3, Topic 1, Lesson 1, Activity 1.1, the first problem students encounter is to "Verify that both equations are equivalent to x = 2 using the given strategy." The strategies used are substitution and properties of equality. Substitution of a value for a variable is a procedure taught in previous grade levels, and properties of equality is a concept covered in the current course as well as previous courses.
- Materials demonstrate coherence at the lesson level by connecting students' prior knowledge of concepts and procedures from the current grade level to new mathematical knowledge and skills. One example is the procedure of solving equations and the concept of properties of equality. *Module 5 Overview* states, "Throughout this course, students have solved equations using the properties of equality and/or a graphical representation. These skills are utilized

again in solving quadratic equations, and students add to them when they learn factoring, completing the square, and the quadratic formula." Students solve linear equations in Module 3, Topic 1, Lesson 1 before solving quadratic equations in Module 5, Topic 3, Lessons 2-4.

- Materials demonstrate coherence at the lesson level by connecting students' prior knowledge of concepts and procedures from the prior grade level to new mathematical knowledge and skills. One example is the connection of students' prior knowledge about concepts of equality and procedures to solve equations from previous courses to the new mathematical knowledge and skills of solving literal equations. *Module 3 Topic 1 Overview* states, "Coming into this course, students have solved two-step equations with variables on both sides. They understand the underpinnings of solving equations by maintaining equality...they also use this understanding to solve literal equations for given variables, connecting back to the formulas they have used for area, volume, and surface area to solve for unknown variables."
- The *Getting Started* section of each lesson demonstrates coherence at the lesson level by connecting to students' knowledge of concepts and procedures from previous grade levels. The materials state, "When working on the *Getting Started*, use what you know about the world, what you have learned previously, or your intuition. The goal is just to get you thinking and ready for what's to come."

Depth and Coherence of Key Concepts

4.3	Spaced and Interleaved Practice	8/8
4.3a	Materials provide spaced retrieval opportunities with previously learned skills and concepts across lessons and units.	**4/4**
4.3b	Materials provide interleaved practice opportunities with previously learned skills and concepts across lessons and units.	**4/4**

Materials provide spaced retrieval opportunities with previously learned skills and concepts across lessons and units. Materials provide interleaved practice opportunities with previously learned skills and concepts across lessons and units.

Evidence includes, but is not limited to:

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 and modules/topics. The *Prepare* section of the lesson assignments and the *Spaced Practice* sets of *Skills Practice* can serve as diagnostic tools." Teacher guidance in the *Skills Practice*, *Teacher Edition (TE)* of the *Skills Practice Book* states that the practice sets of *Skills Practice* to analyze individual students' level of proficiency on standards from previous topics." For example, Module 3 Topic 2 covers systems of linear equations and inequalities. The *Skills Practice* problems for this topic ask students to write a linear regression equation from data in a table and predict a value based on their equation, write an equation in two forms given the slope and a point, and determine if an equation has infinite, one, or zero solutions.
- Materials provide spaced retrieval opportunities with previously learned skills and concepts across lessons. For example, TEKS A.12B (evaluating functions) is considered Topic aligned in Module 2, Topic 1, Lesson 6 *Skills Practice Topic Set B*. TEKS A.12B is placed under *Spaced Practice* in Module 2, Topic 1, Lesson 3. In the *Spaced Practice* section of Module 2, Topic 1, Lesson 3, students are asked to evaluate each function for specific values in three problems that provide a function and two values. Students are asked to "use each equation or graph to determine input and output values" and provide three problems with 1 equation and three input values to evaluate in each problem in Module 2, Topic 1, Lesson 6.
- Materials provide spaced retrieval opportunities with previously learned skills and concepts across modules/topics. For example, the *Spaced Practice* section in Module 2, Topic 2, Lesson I includes two practice questions for TEKS A.4B, asking students to construct a scatterplot of the data provided and determine if linear regression is appropriate. A third question for TEKS A.4C asks students to use technology to write a function to represent the line of best fit for a provided graph, and a fourth question aligned with TEKS A.4A asks students to compute and interpret the correlation coefficient. These TEKS in this spaced practice section were introduced in Module 2, Topic 1, Lesson 2 as topic-aligned TEKS.
- Teacher guidance in the *Course and Implementation Guide* states that the *Prepare* section [of each Lesson Assignment] provides spaced retrieval of concepts related to previous learning

and fluency skills important for the course." Module 1, Topic 1, Lesson 2 *Assignment's Prepare* section contains three questions that are related to the concepts in the consecutive lesson, Module 1, Topic 1, Lesson 3.

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

- The materials offer interleaved practice opportunities that alternate between previously learned skills and concepts throughout lessons and modules/topics. The overview of skills practice states that the problem sets for each topic can include practice sets that align with the lesson content. While most problem sets align with the grade level standards, some incorporate prerequisite skills, and others offer opportunities for extension. In the *Skills Practice Guide*, the teacher side note #8, titled "Interleaved Practice" in the *TE,* states, "You will see TEKS within a *Topic Practice* section labeled as "Interleaved Practice". "Interleaved Practice" indicates that students are practicing multiple skills together. "Interleaved Practice" requires students to examine the problem to choose a strategy. "Interleaved Practice" improves flexibility in applying learned skills by interleaving different types of problems."
- Materials provide interleaved practice opportunities with previously learned skills and concepts across lessons. For example, TEKS A.12C identifying terms of arithmetic and geometric sequences is introduced as a prerequisite practice set in Module 2, Topic 2, Lesson II Skills Practice "Problem Set A" and "Problem Set B." In "Problem Set A", students are asked to "determine the common difference and identify the next three terms in each arithmetic sequence." In "Problem Set B", students are asked to "determine the common ratio and identify the next three terms in each geometric sequence." TEKS A.12C is then practiced as a Topic-Aligned TEKS in "Problem Set C", where students are asked to "determine whether each given sequence is arithmetic or geometric and write the next three terms of each sequence." In Module 2, Topic 2, Lesson III, Skills "Practice Set B", students are asked to practice TEKS A.12C in this interleaved practice set to identify the nth-term of various sequences in recursive form in 6 practice problems.
- Materials provide interleaved practice opportunities with previously learned skills and concepts across modules/topics. TEKS A.3C graph linear functions on the coordinate plane and identify key features is included as a topic-aligned TEKS in Module 2, Topic 1, Lesson 1, Lesson 5, and Lesson 6 and is also included as interleaved practice sets in Module 1, Topic 1 Lesson 1, Lesson 2, and Lesson 4. In Module 2, Topic 1, Lesson 1, Skills "Practice Set A," students are asked to graph the line of best fit. In Module 2, Topic 1, Lesson 5, students are asked to graph the given equations. In Module 2 Topic 1, Lesson 6, students are asked to determine the x-intercept, the y-intercept, the slope, and the equation of the given line in slope-intercept form and in factored form. In Module 1, Topic 1, Lesson 1, "Skills Practice Set B", students have an opportunity for interleaved practice for A.3C, A.9D, and A.7A when students are asked to "label the axes of each graph with the independent and dependent quantities."
- Materials provide interleaved practice opportunities with previously learned skills and concepts across lessons. The *End of Topic Assessment* assesses multiple SEs taught across multiple lessons. For example, in Module 4, Topic 1, the *End of Topic Assessment* expects

students to determine and analyze exponential functions to determine domain and range, interpret the meaning of the values of ‘a’ and ‘b’ when given the equation, write the exponential function from both mathematical and real-world situations, and graph exponential functions and identify key features.

- The *Performance Tasks* include interleaved practice opportunities with previously learned skills and concepts across modules/topics. For example, *Performance Task 3* requires students to analyze three compensation plans for three different job offers. They must determine which function family, linear, exponential, or quadratic, best models each function and use tables, equations, and graphs to represent each compensation plan.

Balance of Conceptual and Procedural Understanding

5.1	Development of Conceptual Understanding	18/18
5.1a	Questions and tasks require students to interpret, analyze, and evaluate a variety of models and representations for mathematical concepts and situations.	**12/12**
5.1b	Questions and tasks require students to create a variety of models to represent mathematical situations.	**2/2**
5.1c	Questions and tasks provide opportunities for students to apply conceptual understanding to new problem situations and contexts.	**4/4**

Materials include questions and tasks that require students to interpret, analyze, and evaluate a variety of models and representations for mathematical concepts and situations. Materials include questions and tasks that require students to create a variety of models to represent mathematical situations. Materials include questions and tasks provide opportunities for students to apply conceptual understanding to new problem situations and contexts.

Evidence includes, but is not limited to:

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

- Questions require students to interpret, analyze, and evaluate a variety of models and representations for mathematical concepts and situations. Activities found in the *Student Edition* combine a variety of models and representations that allow students to make predictions and determine reasonableness. For example, Module 3, Topic 2, Lesson 1, Activity 1.3: "Systems with No Solution, One Solution, or an Infinite Number of Solutions" gives students a variety of questions and has them create a variety of representations they think through the problem. Questions such as, "Use your equations to predict...Analyze the equations in your system. How do the slopes compare? Describe what this means in terms of this problem situation. How do the y-intercepts compare? Describe what this means in terms of this problem situation. Predict what the graph of this system will look like. Explain your reasoning. Graph both equations on the coordinate plane. Analyze the graph you created. Describe the relationship between the graphs. Does this linear system have a solution? Explain your reasoning. Was your prediction in Question 2 correct? Explain how you algebraically and graphically proved your prediction."
- Tasks require students to interpret, analyze, and evaluate a variety of models and representations for mathematical concepts and situations. Module 2, Topic 1, Lesson 6 Activity 6.2, Question 1 - requires students to "analyze and interpret the graph. List as many facts as you can about the scenario based on what you see in the graph and describe how they related to the scenario." Question 3 requires students to "write a function, E(t), to model Gracie's potential earnings given the number of T-shirts she sells," while question 4 requires students to analyze and interpret: "What does (t, E(t)) represent in terms of the function and the graph?" Finally, question 5 provides students with the stimulus "E(2), E(5), E(2.75)" and

requires students to "evaluate each and interpret the meaning in terms of the equation, the graph, and the scenario."

- Questions require students to interpret, analyze, and evaluate a variety of models and representations for mathematical concepts and situations. A variety of questions across the "Skills Practice" component for "Learning Individually" asks students to interpret, analyze, and evaluate models and representations. Module 2, Topic 2, asks students to "Compute and interpret the correlation coefficient." Module 4, Topic 2, asks students to "Identify and interpret the a- and b-values of the function in terms of the problem situation." Module 3, Topic 2, asks students to "Analyze the data in the table." Module 4, Topic 2, notes, "The function is graphed on the grid. Analyze this information to answer each question." Module 4, Topic 2, asks students to "Write an exponential function, P(t), to represent the amount of money Logan has in his account as a function of time, t. Evaluate P(0). Explain what the value means in terms of the scenario." Module 3, Topic 1, asks students to "Consider the scatterplot and the correlation coefficient. State whether a linear model is appropriate for the data."
- Materials include tasks that require students to interpret, analyze, and evaluate a variety of models and representations for mathematical concepts and situations in Module 4, Topic 1, Lesson 2. In Module 4, Topic 1, Lesson 2 of the *Teacher Edition (TE)*, in *Talk the Talk*, "Students create graphic organizers to organize their thoughts regarding the five properties learned in this topic. For each rule, they write a definition, list facts and characteristics, develop and solve example problems, and then write a general rule for each property."

Questions and tasks require students to create a variety of models to represent mathematical situations.

- Questions require students to create a variety of models to represent mathematical situations. For example, Module 1, Topic 1, Lesson 4, Activity 4.2, Question 1b requires students to "use the given characteristics to create an equation and sketch a graph." Module 2, Topic 1, Lesson 2, Activity 2.2, Question 2a requires students to "sketch and label the scatterplot" using the provided dataset.
- Questions require students to create a variety of models to represent mathematical situations. Throughout the *Skills Practice* in the *Student Edition*, questions are presented to students that ask them to create a variety of representations from tables, graphs, equations, and scenarios that model a given equation. For example, in the Module 1, Topic 1 questions over the "Quantities and Relationships" section of the *Skills Practice* book has students, "Create an equation and sketch a graph for a function with each set of given characteristics. Use values that are any real numbers between −10 and 10." One example of a question is, "Create an equation and sketch a graph that: is discrete, has a maximum, does not pass through the origin, and is quadratic."
- Tasks require students to create a variety of models to represent mathematical situations. Module 2, Topic 1, Lesson 5, *Talk the Talk,* provides 3 problems and requires students to "write an equation, state the form of the equation and reason for using that form, and graph the line using any method" for the 3 questions in the task.
- Tasks require students to create a variety of models to represent mathematical situations. The *Talk the Talk* tasks at the end of each lesson frequently require students to create a variety of

models. For example, in the *Student Edition* of the textbook, Module 2, Topic 1, Lesson 4 *Talk the Talk* task has students "Create a context that represents a linear relationship that passes through the point (2, 56) and has an increasing slope. Then, write the equation of the line in point-slope form and slope-intercept form." In Module 2, Topic 2, Lesson 4, the *Talk the Talk* presents students with a table of values and instructs them to "Create a situation to represent the table of values shown."

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

- The *Course and Implementation Guide* states, "Questions are phrased in a way that promotes analysis, develops higher-order thinking skills, and encourages the seeking of mathematical relationships." For example, "Thumbs Up/Thumbs Down" questions "allow students the opportunity to analyze viable methods and problem-solving strategies...to help students think more in-depth about the various strategies and analyze correct responses." This is done by showing students a worked example of the problem at hand and asking them to give a thumbs up or down whether it is solved correctly or incorrectly. This provides an opportunity for students to apply conceptual understanding to this new problem within the context of it being solved for them.
- Questions provide opportunities for students to apply conceptual understanding to new problem situations and contexts. The materials provide open-ended questions with a variety of possible answers and direct students to explore other possible options after they have discovered one answer. In Module 2, Topic 1, Lesson 2, Activity 2.4, "Correlation Vs. Causation", "students are provided contexts and make judgments about correlation vs. causation." The *TE* directs teachers to ask probing questions such as, "What is another possible reason that both smartphone and flat-screen television sales have increased? What is another possible reason that both NFL salaries and the weight of NFL players have increased? Why does this conclusion make more sense than the other ones Jackson and Ricardo made?"
- Materials include questions that provide opportunities for students to apply conceptual understanding to new problem situations and contexts in Module 2, Topic 2, Lesson 3. In Module 2, Topic 2, Lesson 3 of the *TE* in the "Assignment" activity, students have to use their understanding of slope, parallel, and perpendicular lines to answer questions. For example, the question states, "Two office buildings are to be located at the points (8, 4) and (12, 10). Would the shortest road between the two office buildings be a line that is perpendicular to Moonbeam Drive? Explain your reasoning."
- Tasks provide opportunities for students to apply conceptual understanding to new problem situations and contexts. The "Facilitation Notes" for "Ticket Tabulation" found in the *TE* for the "Engage" activity in Module 3, Topic 2, Lesson 1 says, "Students write an equation in standard form to represent a scenario and determine a solution to the scenario and equation. They explain why there is more than one possible solution." This is the first lesson in the "Using Graphing to Solve Systems of Equations." Question 3 of this task asks, "Compare your combination of ticket sales with your classmates. Did you all get the same answer? Explain why or why not."

- Tasks provide opportunities for students to apply conceptual understanding to new problem situations and contexts. Module 2, Topic 1, Lesson 6 Assignment includes a task stating, "For each scenario, write a linear function in factored form and in general form. Then, sketch a graph and label the x- and y-intercepts. Finally, answer each question." The scenarios include "Omar prints and sells t-shirts, how much money will he earn?", "Juliana paints and sells ceramic vases, how much money will she earn?" and "Antonio builds and sells homemade wooden toys, how much money will he earn?" Students must apply conceptual understanding of interpreting quantities in word problems to write linear equations to answer these questions.
- Materials contain questions for students to apply conceptual understanding to new problem situations and contexts. For example, "Performance Task 3" includes questions like, "How do you know which function family (linear, quadratic, or exponential) represents each compensation plan?" to "What does the value of a and c mean in terms of the problem situation for the compensation plan that was quadratic?" to "How did you determine which compensation plan you would recommend to Lauren so she may retire early?" The task concludes with a "Challenge Opportunity" that states, "Ask students to consider Lauren's cumulative pay for each compensation plan and determine when she hits one million dollars in cumulative earnings for each plan."

Balance of Conceptual and Procedural Understanding

5.2	Development of Fluency	12/12
5.2a	Materials provide tasks that are designed to build student automaticity and fluency necessary to complete grade-level tasks.	**2/2**
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.	**3/3**
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.	**6/6**
5.2d	Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches.	**1/1**

Materials provide tasks that are designed to build student automaticity and fluency necessary to complete grade-level tasks. Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures within the lesson and/or throughout a unit. Materials provide opportunities for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy within the lesson and throughout a unit. Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches.

Evidence includes, but is not limited to:

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

- Materials provide tasks that are designed to build student fluency necessary to complete grade-level tasks. The *Course and Implementation Guide* found at the start of the *Teacher Edition (TE)* describes the instructional design process used in the materials. "The instructional development aids students in the effective transition from their intuitive understanding of the world to the abstract language of mathematics. Once students have ample opportunities to build understanding, procedural problems, and exercises are presented to increase computational fluency."
- Materials provide tasks that are designed to build the fluency necessary to complete grade-level tasks. The *Course and Implementation Guide* lists the "Prepare" section of each lesson as an opportunity for spaced retrieval of concepts related to previous learning and fluency skills important for the course."
- Materials provide tasks that are designed to build student automaticity necessary to complete grade-level tasks. For example, Module 5, Topic 3, Lesson 4, Activity 4.4 provides students with a chart to solve quadratic equations using the quadratic formula to determine the "number of solutions, number of unique real zeros, number of x-intercepts, then sketch the graph of the equation" based on the key characteristics determined. Also, the *Talk the Talk* following Activity 4.4 divides the page into four sections, with each section requiring students to determine the real roots of a given quadratic equation using "Factoring," "Completing the

Square," and "Using the Quadratic Formula and Graphing." Students are required to recall information quickly and apply their knowledge of solving quadratics using different methods to determine which is the most efficient way.

- "Skills Practice Guide" in the *Skills Practice TE* states, "Deliberate practice is essential to build fluency in mathematics," and provides reinforcement that intentionally connects concepts and provides review opportunities. This intentional, ongoing practice allows students to go past rote memorization and truly remember new information. The individual practice, provided by "Skills Practice," "is necessary for students to become fluent and build automaticity in a skill." The materials include daily exercises that target specific skills or concepts that build automaticity and fluency.

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

- Materials provide opportunities for students to practice the application of efficient mathematical procedures within the lesson and/or throughout a module/topic in the *Course and Implementation Guide*. In the *Course and Implementation Guide* of the *TE,* it states, "The instructional approach utilized is based on three key components: "Engage" (Getting Started), "Develop" (Activities), and "Demonstrate" (*Talk the Talk*). The "Getting Started" for each lesson activates student thinking by tapping into prior knowledge and real-world experiences. The activities in each lesson vary in complexity and build a deep understanding of mathematics. The *Talk the Talk* for each lesson is an opportunity to engage students in reflection and assess their learning."
- Materials provide opportunities for students to practice the application of efficient mathematical procedures within the lesson and/or throughout a module/topic. Questions following worked examples ask students to replicate the efficient solution method presented in the worked example. For example, Module 2, Topic 1, Lesson 5, "Worked Example" after Question 10, shows students an efficient method to write linear equations in standard form given two points by finding the slope, writing an equation in point-slope form, and rewriting an equation in standard form. Question 11 follows with 3 opportunities for students to apply this efficient method to check for student understanding.
- Materials provide opportunities for students to practice the application of accurate mathematical procedures within the lessons and throughout the module/topic. The Module 2, Topic 2 overview found ahead of the topic in the *TE* asks and answers the question of how the activities from the "Transforming and Comparing Linear Functions" module promote student expertise in the TEKS; "Throughout [the module], use structure and patterns to develop an understanding of the rules of transformation. Students are expected to use precision when analyzing graphs and describing transformations. They apply what they learn throughout the topic to solve real-world problems using the problem-solving model. Students communicate their mathematical reasoning using tables, graphs, and equations."

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

- Materials provide opportunities for students to evaluate processes for efficiency and flexibility within the lesson and throughout a module/topic. The *TE* provides "Facilitation Notes" for each activity in a module and contains "Questions to Support Discourse." In Module 3, Topic 1, Lesson 2, Activity 2.1, these questions are, "For any of these purposes, are there multiple forms of the equation that are equally efficient? Explain your reasoning. Which form do you prefer to start with when rewriting an equation in slope-intercept form? Point-slope form? Standard form?" Questions found on the student activity page include, "If you want to graph an equation using technology, which form is more efficient? Explain your reasoning. Which form of a linear equation is more efficient for determining each characteristic? Slope, a point on the line, y-intercept." The *Talk the Talk* task at the end of Lesson 2 asks, "What is the most efficient way to solve for 'h'? ...Would you rather substitute the value of 'h' in the original formula and then solve the resulting equation, or solve the literal equation first and then evaluate the resulting expression? Why?
- Materials provide opportunities for students to evaluate processes for accuracy within the lesson and throughout a module. The *Course and Implementation Guide's* "Research-Based Strategies" section, "Heading Thumbs Up/Thumbs Down," describes " "Thumbs Up" problems allow students the opportunity to analyze viable methods and problem-solving strategies. We present questions to help students think more in-depth about the various strategies and analyze correct responses." "Thumbs Down" problems, showing incorrect responses, allow students to identify and explain errors and make corrections."
- Materials provide opportunities for students to evaluate solutions for efficiency, flexibility, and accuracy within the lesson and throughout a topic in the *Course and Implementation Guide*. In the *Course and Implementation Guide* of the *TE,* "Students learn when they are actively engaged in a task: reasoning about the math, writing their solutions, justifying their strategies, and sharing their knowledge with peers." "Activities may include real-world problems, sorting activities, worked examples, or analyzing sample student work."

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

- Materials contain embedded supports for teachers to guide students towards increasingly efficient approaches. Each lesson in the teacher guide contains "Questions to Support Discourse" that teachers are directed to use during the class. Throughout the *TE,* these questions are geared towards looking for more efficient strategies or methods of solving various problems. In Module 3, Topic 1, Lesson 2, one of these questions labeled "Reflecting and Justifying" asks, "For any of these purposes, are there multiple forms of the equation that are equally efficient? Explain your reasoning." Contained within this section of the *TE* are also differentiation strategies. One such strategy, titled "Just in Time Support," guides teachers to "Discuss why distributing 'h' to two terms is not an efficient strategy when solving for 'h'."
- Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches. In Module 1, Topic 2, Lesson 2 *Facilitation Notes*, teachers can read

"Questions to support discourse" to use when guiding students while writing recursive formulas, such as "What strategies did you use to determine the patterns in the sequences with fractions? What is the difference between an arithmetic and geometric sequence? How do you apply a common difference to create a sequence?". In Lesson 3, Activity 3.1, students can read in the lesson materials, "You can determine the 93rd term of the sequence by calculating each term before it and then adding 18 to the 92nd term, but this will probably take a while! A more efficient way to calculate any term of a sequence is to use an explicit formula. In Lesson 3 *Facilitation Notes* for Activity 3.1, Teachers can read "Questions to Support Discourse" to guide students toward increasingly efficient approaches, such as "What is the advantage of using an explicit formula?"

Balance of Conceptual and Procedural Understanding

5.3	Balance of Conceptual Understanding and Procedural Fluency	16/16
5.3a	Materials explicitly state how the conceptual and procedural emphasis of the TEKS are addressed.	**2/2**
5.3b	Questions and tasks include the use of concrete models and manipulatives, pictorial representation (figures/drawings), and abstract representations.	**6/6**
5.3c	Materials include supports for students in connecting, creating, defining, and explaining concrete and representational models to abstract (symbolic/numeric/algorithmic) concepts.	**8/8**

Materials explicitly state how the conceptual and procedural emphasis of the TEKS are addressed. Materials contain questions and tasks that include the use of concrete models and manipulatives, pictorial representation, and abstract representations. Materials include supports for students in connecting, creating, defining, and explaining concrete and representational models to abstract concepts.

Evidence includes, but is not limited to:

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

- Materials explicitly state how the conceptual emphasis of the TEKS are addressed. Each module/topic in the *Teacher Edition (TE)* - begins with an "Overview," which includes a "Pacing Guide" that details the lesson, specific TEKS, ELPS, highlights from the concepts to be taught, number of days, and materials needed. The fifth lesson from Module 2, Topic 1, is slated for three days of instruction and covers TEKS A.2B, A.2C, A.3A, and A.3C. The highlights for the "Pacing Guide" state, "Students use three different forms of a linear equation to graph linear relationships...how to use the slope-intercept and point-slope forms of a line to graph... standard form of a linear equation and connect relationships among the coefficients of the standard form with the [key features] of a line... writing and graphing equations in standard form. [They] identify the slope and intercept of linear equations in different forms and evaluate the usefulness of each form of a linear equation."
- The materials explicitly state how the conceptual emphasis of the TEKS is addressed. The lessons in the *TE* begin with a lesson overview. This page specifies which TEKS are covered in the lesson and connects them to the "Essential Ideas" of the lesson. It then details the purpose of the lesson and how each component is driving learning toward the "Essential Ideas." In Module 2, Topic 1, Lesson 5, the lesson overview states, "The intent of this lesson is to see what students understand and are able to do. Most students will resort to creating tables and plotting points to graph the lines. Students may struggle with how to use similar triangles or transformations to create graphs. The following activities guide students to graph from slope-intercept, point-slope, and standard forms of equations of lines."
- The materials explicitly state how the procedural emphasis of the TEKS is addressed. The "Balancing Conceptual and Procedural" section of the *Program and Implementation Guide*

states, "This program covers both conceptual deep understanding and procedural fluency to pursue rigorous coverage of the TEKS. Both conceptual understanding and procedural fluency are necessary for proficiency. To achieve a deep understanding and progression in instruction starts with building understanding with concrete objects or movements, then moves to represent concepts visually, and finally to abstraction by modeling with symbols. Progressions can occur across topics, across lessons, and within lessons. Students have ample opportunities before procedural problems and exercises are presented to increase computational fluency. More information on balancing the conceptual and procedural aspects of each course is in the course-specific "Connecting Learning Experiences" section of the *Course and Implementation Guide*."

- The materials explicitly state how the procedural emphasis of the TEKS is addressed. *Algebra I Course and Implementation Guide*, "Connecting Learning Experiences," states, "The Instructional Development aids students in the effective transition from their intuitive understanding of the world to the abstract language of mathematics. Once students have ample opportunities to build understanding, procedural problems and exercises are presented to increase computational fluency. A thoughtful progression from the use of manipulatives and visual aids to representations and drawings that bridge to more abstract understanding benefits all students."

Questions and tasks include the use of concrete models and manipulatives, pictorial representation (figures/drawings), and abstract representations.

- Materials include questions that include the use of pictorial representation (figures/drawings) as appropriate for the content and grade level. In Module 2, Topic 1, Lesson 1, there are questions written with concrete and abstract representations. For example, in the "Getting Started" of the lesson, question 1 states, "Construct a scatterplot of the collected data," given a data table and coordinate grid. Question 2 states, "Use your linear model to describe the relationship between the temperature outside and the number of customers at the frozen yogurt shop."
- Questions and tasks include the use of abstract representations as appropriate for the content and grade level. In Module 2, Topic 1 overview found in the *TE*, "[s]tudents are expected to make sense of problems and work towards solutions, reason using concrete and abstract ideas, and communicate their thinking while providing a critical ear to the thinking of others. Throughout "Linear Functions," students model real-world situations with multiple representations. They use the problem-solving model to think through and solve real-world problems. Students are expected to decontextualize real-world situations as they create tables, equations, and graphs and then re-contextualize them to interpret their meanings. They must consider the structure of the equation, quantities, units, and scales when creating graphs to create precise and useful representations of problem situations. Students must also choose which representation to use when representing a function."
- Materials include tasks that include the use of concrete models as appropriate for the content and grade level in the *Assessment Guide*. The "Performance Tasks Overview" of the *Assessment Guide* states, "The "Performance Tasks" allow students to demonstrate their ability to make sense of multi-step, real-world problems, and justify their reasoning on content

aligned with these selected math standards." For example, "Students will demonstrate understanding of the *Systems of Linear Equations and Inequalities Performance Task* when they can: Graph a system of two linear equations in two variables on the coordinate plane and determine the solutions when they exist. Solve a system of two linear equations with two variables for mathematical and real-world problems and interpret the solutions in terms of the context. Write quadratic functions in standard form to describe problems arising from mathematical and real-world situations."

- Tasks include the use of manipulatives as appropriate for the content and grade level. The *TE* contains a *Course and Implementation Guide* that describes the instructional design process used for "Connecting Learning Experiences," stating that "progression from the use of manipulatives and visual aids to representations and drawings that bridge to more abstract understanding benefits all students. [...] These progressions can occur across topics, across lessons, and within lessons." For example, this C-R-A (concrete, representational, abstract) sequence occurs in the "Introduction to Quadratic Functions" task, "...students first build their understanding as they explore a real-world scenario to develop their intuitive understanding of quadratic functions." They "Represent the Concept" as they "learn that different forms of quadratic functions reveal specific key characteristics of the graph." Finally, they "Move to Symbols" as they "formalize their ability to recognize quadratic relationships represented by tables."

Materials include supports for students in connecting, creating, defining, and explaining concrete and representational models to abstract (symbolic/numeric/algorithmic) concepts.

- Materials include support for students in creating and explaining concrete models to abstract (symbolic/numeric/algorithmic) concepts in Module 2, Topic 2, Lesson 1. In this lesson, students create a concrete model by "using masking tape and a marker to create a coordinate plane on the floor of the classroom. The coordinate plane must extend from at least -16 to +16 on each axis." Then, students "physically perform the movement of the points through the translations and dilation." Then later, students can describe "What does the y in y = 4 represent?" and "How are the lines graphed by multiplying by 2 and 22 the same? Different?".
- Materials include support for students in connecting concrete models to abstract concepts. Lessons in the *TE* and also the *Student Edition* begin with a concrete example of an algebraic concept and then guide students through an investigation of the content through the abstract. In Module 1, Topic 2, Lesson 1, Activity 1." arithmetic sequences are introduced with Pascals Triangle. Next, they are presented with a set of dots arranged in a decreasing pattern to concretely show a mathematical sequence. The next step is to represent this sequence of dots in a table of values. A margin note in the student textbook states, "All numeric sequences can be represented as functions. The independent variable is the term number beginning with 1, and the dependent variable is the term value of the sequence." Activity 1.2 in this topic continues the investigation of the same patterns that were introduced in Activity 1.1. Students add a verbal description of what is happening from one dot pattern to the next. Module 1, Lesson 2 continues where the previous lesson left off. Students are now guided to write an arithmetic sequence for the patterns using the abstract algebraic symbols a[sub]n = a[sub]n-1 + (-2). The terms for a[sub]n and a[sub]n-1 are defined in a margin note for students.

- Materials include support for students in connecting concrete and representational models to abstract. Module 5, Topic 3, Lesson 1, Activity 2.1 in the *TE* includes "Questions to Support Discourse" for questions 2 and 3 where the probing questions entail, "Did you use the algebraic strategy in the "Worked Example" first? Why or why not? Did you solve these equations algebraically, graphically, or by inspection? Explain your strategy. What extra steps did you take to rewrite the equations? Describe the graphs."

Balance of Conceptual and Procedural Understanding

5.4	Development of Academic Mathematical Language	14/14
5.4a	Materials provide opportunities for students to develop their academic mathematical language using visuals, manipulatives, and other language development strategies.	**3/3**
5.4b	Materials include embedded guidance for the teacher addressing scaffolding and supporting student development and use of academic mathematical vocabulary in context.	**2/2**
5.4c	Materials include embedded guidance for the teacher 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.	**9/9**

Materials provide opportunities for students to develop their academic mathematical language using visuals, manipulatives, and other language development strategies. Materials include embedded guidance for the teacher addressing scaffolding and supporting student development and use of academic mathematical vocabulary in context. Materials include embedded guidance for the teacher 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.

Evidence includes, but is not limited to:

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

- Materials provide opportunities for students to develop academic mathematical language using visuals in the "Topic Summary." The "Topic Summary" of Volume 1 in Module 1, Topic 1 states, "The ‘Vertical Line Test’ is a visual method used to determine whether a relation represented as a graph is a function. To apply the ‘Vertical Line Test,’ consider all the vertical lines that could be drawn on the graph of a relation. If any of the vertical lines intersect the graph of the relation at more than one point, then the relation is not a function. The ‘Vertical Line Test’ applies to both discrete and continuous graphs. A discrete graph is a graph of isolated points. A continuous graph is a graph of points that are connected by a line or smooth curve with no breaks in the graph." This paragraph is followed by two graphs, one that is a function and one that is not a function. Each graph has a small explanation of how to use the 'Vertical Line Test' to determine if the graphs are or are not a function.
- Materials provide opportunities for students to develop academic mathematical language using manipulatives. For example, Module 5, Topic 2, Lesson 2, has students using algebra tiles in the "Getting Started" and Activity 2.1 to first model and then multiple binomials. The "Differentiation Strategy" for "Getting Started" states, "Have students build the product in the

Worked Example with algebra tiles. Then, have them use algebra tiles to model and determine the product in Question 2." This is followed by "Questions to Support Discourse," which includes "What is the product of $x \cdot x$? How is it shown in the model?" Activity 2.1 also has "Questions to Support Discourse," such as, "How does the area model represent the distributive property?"

- Materials provide opportunities for students to develop academic mathematical language using visual strategies. The *Student Edition* of the textbook contains a math glossary that provides terms, definitions, examples, and images. For example, the axis of symmetry entry states: "The axis of symmetry of a parabola is the vertical line that passes through the vertex and divides the parabola into two mirror images. Example line K is the axis of symmetry of this parabola." An image of a parabola with line K dividing the graph down the middle is provided.
- Materials provide opportunities for students to develop academic mathematical language using manipulatives. Module 3, Topic 1, Lesson 1 provides teachers with a suggested "Just in Time" support strategy. "Have students build their equations with algebra tiles so they can visually see what is happening as they build their equation." Questions and prompts to "Support Discourse," such as, "Which property did you use when you multiplied by a constant on the side of the equation with two terms? Demonstrate how you divided each side of the equation by a constant." are provided.

Materials include embedded guidance for the teacher addressing scaffolding and supporting student development and use of academic mathematical vocabulary in context.

- Materials include embedded guidance for the teacher addressing scaffolding student development and use of academic mathematical vocabulary in context. The *Program and Implementation Guide* found in the "Program Level Resources" includes a section called ... "Leveraging the Math Glossary, Header Scaffolding Up for Students" states, "Consider scaffolding activities that would encourage students to pursue cross-discipline and real-world applications of academic terminology using the math glossary. How would this vocabulary integrate in the real-world and in common language? What careers would use this language regularly and why might they use it regularly? By encouraging your students to begin to develop those real-world connections to the vocabulary, it will help them apply the information they are learning to other disciplines as well."
- Materials include embedded guidance for the teacher addressing supporting student development and use of academic mathematical vocabulary in context. For example, Module 1, Topic 1, Lesson 3, Activity 3.1 guides teachers to "have a student read the definitions of ‘Vertical Line Test,’ discrete graph, and continuous graph aloud. Discuss as a class."
- Materials include embedded guidance for the teacher addressing scaffolding and supporting student development and use of academic mathematical vocabulary in context. One of the differentiation strategies noted in Module 5, Topic 2, Lesson 3, Activity 3.1, "Polynomial Long Division," is to scaffold support by having students "complete the integer long division problem and polynomial long division problem together through questioning so students are not overwhelmed." Students can also "compare their steps to the "Worked Example" " and use it as a reference. Also, questions are provided to support student discourse and use of academic mathematical vocabulary: "Why is a negative sign distributed to each product

written under the dividend? What is the importance of getting a remainder of zero? What would it mean if the division resulted in a remainder? How can you tell what the zero is from the divisor?"

Materials include embedded guidance for the teacher 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.

- Materials include embedded guidance for the teacher to support the application of appropriate mathematical language to include vocabulary, syntax, and discourse to include guidance to support mathematical conversations that provide opportunities for students to hear, refine, and use math language with peers and develop their math language toolkit over time as well as guide teachers to support student responses using exemplar responses to questions and tasks. In the "Facilitation Notes" for Module 2, Topic 1, Lesson 6, provide guidance for the "Getting Started" activity. "Have students work with a partner or in a group to complete question 1. Share responses as a class." Question 1 of the activity is "Determine whether each representation models a linear or nonlinear function. Explain your reasoning." The teacher's guidance is: "As students work, look for methods, vocabulary, and notation used to determine whether a function is linear."
- Materials include embedded guidance for the teacher to support the application of appropriate mathematical language to include vocabulary 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 definitions for domain, range, relation, and function notation are given. In Module 1, Topic 1, Lesson 3, Activity 3.2, students are asked to "Explain how you can identify the domain and range of a function given: a verbal description, a graph." Teacher guidance in the margin states, "Questions 1 and 2 present an opportunity to assess students' understanding of the essential content of the lesson. Use student responses to determine when to schedule "Learning Individually Days." To provide additional practice identifying and writing the domain and range of functions." Exemplar student responses are provided.
- Materials include embedded guidance for the teacher to support the application of appropriate mathematical language to support mathematical conversations that provide opportunities for students to hear, refine, and use math language with peers. For example, Module 1, Topic 2, Lesson 2, Activity 2.1 "Teacher Facilitation Notes" guides teachers to "have students work individually or with a partner to complete question 1 and discuss as a class. Then, have students work with a partner or in a group to complete question 2. Share responses as a class." Questions to support discourse include "What is the difference between an arithmetic sequence and a geometric sequence? What is the relationship between the procedures to calculate the common difference and the common ratio?".

- Materials include embedded guidance for the teacher to support student responses using exemplar responses to questions and tasks and embedded guidance for the teacher to support the application of appropriate mathematical language to support mathematical conversations that provide opportunities for students to use math language with peers. Every lesson in the *TE* lesson answer key includes sample responses to questions in each activity, tasks like the "Talk the Talk" and the "Lesson Assignment." The "Talk the Talk" activity included at the end of every lesson before the "Lesson Assignment" includes teacher guidance under "Chunking the Activity" states, "Group students to complete the activity. Teacher "Facilitation Notes" include "Questions to Support Discourse" for each "Talk the Talk" activity to guide teachers in supporting students in using math language with peers."

Balance of Conceptual and Procedural Understanding

5.5	Process Standards Connections	6/6
5.5a	Process standards are integrated appropriately into the materials.	**1/1**
5.5b	Materials include a description of how process standards are incorporated and connected throughout the course.	**2/2**
5.5c	Materials include a description for each unit of how process standards are incorporated and connected throughout the unit.	**2/2**
5.5d	Materials include an overview of the process standards incorporated into each lesson.	**1/1**

Materials include process standards are integrated appropriately into the materials. Materials include a description of how process standards are incorporated and connected throughout the course. Materials include a description for each unit of how process standards are incorporated and connected throughout the unit. Materials include an overview of the process standards incorporated into each lesson.

Evidence includes, but is not limited to:

Process standards are integrated appropriately into the materials.

- The *TEKS Mathematical Process Standards* are integrated into the materials in the "Topic Overview," which is found in the *Teacher Edition (TE)* of the textbook at the start of every topic. The "Topic Overview" describes how the topic is organized, how the activities promote expertise in the TEKS mathematical process standards, and the ELPS covered in the topic. "The instructional materials embody the *TEKS Mathematical Process Standards* as they encourage experimentation, creativity, and various solution strategies. These mathematical processes empower students to persevere when presented with complex real-world problems."
- *TEKS Mathematical Process Standards* are integrated appropriately into the materials. The online *Algebra I: Year at a Glance 165-Day* document states at the top left corner, "*TEKS Mathematical Process Standards* are embedded in every module: A.1A, A.1B, A.1C, A.1D, A.1E, A.1F, A.1G."

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

- Materials include a description of how *TEKS Mathematical Process Standards* are incorporated throughout the course. The *Algebra 1 Scope and Sequence* gives a 150- or 165-day calendar overview of the pacing for the year. The table provides the module/topic number and title, *TEKS, TEKS Mathematical Process Standards*, ELPS, number of days, lesson summaries, essential ideas, assessments, and learning individually days to be scheduled.

- Materials include a description of how *TEKS Mathematical Process Standards* are incorporated throughout the course. The "Problem-Solving Model" utilized throughout the course is outlined in the *Course and Implementation Guide* under the subheading "Facilitating Student Learning." The "Problem-Solving Model" is incorporated throughout the course, and the description of this model states, "Productive mathematical thinkers are problem solvers. These instructional materials include a problem-solving model to help students develop proficiency with the *TEKS Mathematical Process Standards* and to make sense of the problems they must solve. As students engage with the problem-solving model, have them use the provided questions to guide their thinking. As students collaborate, suggest they use the provided questions to spark discussion. When appropriate, provide students with the *Problem-Solving Model Graphic Organize*r to complete as they solve problems."
- Materials include a description of how *TEKS Mathematical Process Standards* are connected throughout the course. The "Topic Overview" of every module, found at the start of each module, includes a paragraph specifically connecting the standards to the *TEKS Mathematical Process Standards*. For example, Module 2, Topic 2 Overview includes a subsection titled "How do the activities in Transforming and Comparing Linear Functions promote student expertise in the TEKS mathematical process standards?" This question is addressed by explaining that "Throughout Transforming and Comparing Linear Functions, use structure and patterns to develop an understanding of the rules of transformation (TEKS A.1E, A.1G). Students are expected to use precision when analyzing graphs and describing transformations (TEKS A.1F, A.1G). They apply what they learn throughout the topic to solve real-world problems using the problem-solving model. (TEKS A.1A, A.1B). Students communicate their mathematical reasoning using tables, graphs, and equations (TEKS A1.D)."

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

- Materials include a description for each module/topic of how T*EKS Mathematical Process Standards* are incorporated throughout the module/topic. The "Topic Overview" found ahead of each module/topic in the *TE* "describes how the topic is organized from the entry point for students to how students will demonstrate understanding. The "Topic Overview" explains why the mathematics of the topic is important and how the activities within the topic promote expertise in the *TEKS Mathematical Process Standards*."
- Materials include an overview of the *TEKS Mathematical Process Standards* incorporated into each module/topic in the "Topic Overview" found in the *TE* ahead of each topic. Each "Topic Overview" contains a subheading, "How do the activities in [module/topic title] promote student expertise in the *TEKS Mathematical Process Standards*?" Every topic is written with the goal of creating mathematical thinkers who are active participants in class discourse, so elements of the *TEKS Mathematical Process Standards* should be evident in all lessons. Students are expected to make sense of problems and work towards solutions, reason using concrete and abstract ideas, and communicate their thinking while providing a critical ear to the thinking of others."
- Materials include a "Topic Overview" in the *TE* before each module/topic that describes how the *TEKS Mathematical Process Standards* are connected throughout the module/topic. In

Module 2, Topic 1 Overview the subheading "How do the activities in Linear Functions promote student expertise in the *TEKS Mathematical Process Standards?*" describes how the *TEKS Mathematical Process Standards* are connected throughout the module/topic. "Throughout 'Linear Functions,' students model real-world situations with multiple representations (TEKS A.1A, A.1D, andA.1E). They use the problem-solving model to think through and solve real-world problems (TEKS A.1B). Students are expected to decontextualize real-world situations as they create tables, equations, and graphs (TEKS A.1E), and then re-contextualize them to interpret their meanings (TEKS A.1A). They must consider the structure of the equation, quantities, module/topics, and scales when creating graphs to create precise and useful representations of problem situations (TEKS A.1A, TEKS A.1E, TEKS A.1F, TEKS A.1G). Students must also choose which representation to use when representing a function (TEKS A.1C)."

Materials include an overview of the process standards incorporated into each lesson.

- Materials include an overview of the *TEKS Mathematical Process Standards* incorporated into each lesson in the Lesson Overview. For example, Module 1, Topic 1, Lesson 2 Overview lists TEKS A.1E and A.1G along with their descriptions before listing the TEKS and the ELPS." This format is standardized for all lessons throughout the materials.
- Materials include teacher guidance of the *TEKS Mathematical Process Standards* incorporated into each lesson in T*EKS Mathematical Process Standards* notes found throughout the "Lesson Answer Keys" in the *TE*. For example, Module 2, Topic 1, Lesson 2 Correlation, lesson overview lists TEKS A.1D, A.1E, and A.1G as the *TEKS Mathematical Process Standards* in the lesson. Activity 2.1 includes a *TEKS Mathematical Process Standards* margin note stating, "Whether students are demonstrating proficiencies related to TEKS A.1D: Do students represent their mathematical reasoning with appropriate representations? Can students communicate how a chosen representation demonstrates their reasoning? Can students identify the advantages and disadvantages of different representations?" There is another teacher facilitation note for TEKS A.1E located on the margin of Activity 2.3 and another teacher facilitation note for TEKS A.1G located on the margin of Activity 2.4 with similar teacher guidance.
- Materials include an overview of the *TEKS Mathematical Process Standards* incorporated into each lesson. Each lesson in the *TE* begins with a "Lesson Overview," which "sets the purpose and describes the overarching mathematics of the lesson, explaining how the activities build and how the concepts are developed." This page contains an "Algebra 1 TEKS" heading that lists the T*EKS Mathematical Process Standards* and *TEKS Mathematical Content Standard*s for each lesson.

Productive Struggle

6.1	Student Self-Efficacy	15/15
6.1a	Materials provide opportunities for students to think mathematically, persevere through solving problems, and to make sense of mathematics.	**3/3**
6.1b	Materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks.	**6/6**
6.1c	Materials are designed to require students to make sense of mathematics through doing, writing about, and discussing math with peers and teachers.	**6/6**

The materials provide opportunities for students to think mathematically, persevere through solving problems, and to make sense of mathematics. Materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks. Materials are designed to require students to make sense of mathematics through doing, writing about, and discussing math with peers and teachers.

Evidence includes, but is not limited to:

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

- Materials provide opportunities for students to think mathematically, persevere through solving problems, and make sense of mathematics. The *Algebra 1 Course and Implementation Guide* found at the beginning of the *Teacher Edition (TE)* states, "Students learn when they are actively engaged in a task: reasoning about the math, writing their solutions, justifying their strategies, and sharing their knowledge with peers. Support productive struggle by allowing students time to engage with and persevere through mathematics. Support student-to-student discourse as well as whole-class conversations that elicit and use evidence of student thinking."
- Materials provide opportunities for students to think mathematically and make sense of mathematics. Worked examples and fictional student responses (Thumbs Up/Thumbs Down, and Who's Correct) provided in the student textbook offer opportunities for students to think mathematically and make sense of mathematics. In Module 3, Topic 2, Lesson 5, students are provided with the scenario, "Ava makes the statement about the intersection point of a system of inequalities. Explain why Ava's statement is incorrect." Students must determine why her statement is incorrect and write and discuss their answers in groups.
- The materials provide opportunities for students to think mathematically and make sense of mathematics in the "Ask Yourself" questions found in lessons in the *Student Edition*. For example, in Module 1, Topic 1, Lesson 3, Activity 3.2, the Ask Yourself box states, "How does an open or closed circle on a graph reflect the domain and range?"
- The materials provide opportunities for students to persevere through solving problems. The *Algebra I Course and Implementation Guide,* section "Facilitating Student Learning", "Header Self-Monitoring Strategies" states, "throughout the text, there are callouts placed strategically

where there are opportunities for students to practice self-monitoring. Look for students using self-motivation and self-discipline to persevere in problem-solving, engaging in productive struggle as they use their reasoning to solve problems, and demonstrating self-awareness by perseverance through problem-solving."

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

- Materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks. In the *Algebra 1 Course and Implementation Guide,* there is guidance on discussing problem-solving with students. The guide states, "It's not just about answer getting. The process is important. Making mistakes is a critical part of learning, so take risks. There is often more than one way to solve a problem. Activities may include real-world problems, sorting activities, Worked Examples, or analyzing sample student work. Be prepared to share your solutions and methods with your classmates."
- Materials support students in explaining that there can be multiple ways to solve problems. The student textbook contains margin tips for students in the form of "Ask Yourself" speech bubbles that draw their attention to various ideas or concepts. For example, in Module 3, Topic 2, Lesson 1, the "Ask Yourself" bubble asks, "How does representing mathematics in multiple ways help to communicate reasoning?" The "Ask Yourself" note for Lesson 3 in the same module says, "How can you solve the system of equations by transforming the first equation instead of the second?"
- Materials support students in understanding that there can be multiple ways to solve problems and complete tasks in Module 2, Topic 2, Lesson 4. In this lesson, students are learning about functions, which can be represented as a scenario, equation, data table, or graph. "Students are given scenarios which include various functions. One function is described using a table, and the second function is described using a graph. Students compare the functions by identifying the units for the independent and dependent quantities as well as the y-intercepts and slopes."
- The "Performance Tasks" provide opportunities for students to think mathematically, persevere through solving problems, and make sense of mathematics. The "Performance Task Overview" states that these tasks are "an additional opportunity for students to demonstrate their ability to make sense of multi-step, real-world problems, communicate their thinking, represent solutions, and justify their reasoning on content aligned with these selected math standards."
- Materials support students in justifying that there can be multiple ways to solve problems and complete tasks in Module 2, Topic 2, Lesson 4. Within this lesson's "Facilitation Notes," students are given questions about slopes of parallel and perpendicular lines, and they have to label them either with colored graphs, calculations of slopes, or data tables.

Materials are designed to require students to make sense of mathematics through doing, writing about, and discussing math with peers and teachers.

- Materials are designed to require students to make sense of mathematics through doing, writing about, and discussing math with peers. The student textbook provides reminders for students to discuss their findings with peers throughout the lessons. In Module 3, Topic 2, Lesson 5, Activity 5.2, the lesson has students "Graph the system of linear inequalities." Students then "describe how the shaded region represents the solution [and] solve each system of linear inequalities by graphing." They are asked to "explain why Ava's statement is incorrect," and finally, an "Ask Yourself" note on the student page says, "Did you share your solution(s) with others?"
- Materials are designed to require students to make sense of mathematics through doing, writing about, and discussing math with peers. For example, "Facilitation Notes" from Module 1, Topic 1, Lesson 4, Getting Started, guides teachers to "have students work with a partner or a group to complete Questions 1 and 2. Share responses as a class." The "Teacher Facilitation Points" for "Talk the Talk" in the same lesson also guides teachers on how to group students. Questions in "Talk the Talk" ask students to write, "How could you modify your lists of characteristics to describe a unique graph?"
- Materials are designed to require students to make sense of mathematics through doing, writing about, and discussing math with teachers. "Facilitation Notes" for Module 1, Topic 2, Lesson 2, Activity 2.1, guides teachers to "review the Worked Example as a class." The "Differentiation Strategies, Access for All" section right below suggests, "Encourage students to read through the worked example and annotate key ideas and steps in the process." After reading the worked example, teachers are guided to "Have students work individually or with a partner to complete Question 1 and discuss as a class. Then, have students work with a partner or in a group to complete Question 2. Share responses as a class."

Productive Struggle

6.2	Facilitating Productive Struggle	10/10
6.2a	Materials support teachers in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, and justifications.	**6/6**
6.2b	Materials offer prompts and guidance to assist teachers in providing explanatory feedback based on student responses and anticipated misconceptions.	**4/4**

The materials support teachers in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, and justifications. Materials offer prompts and guidance to assist teachers in providing explanatory feedback based on student responses and anticipated misconceptions.

Evidence includes, but is not limited to:

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

- The materials support teachers in guiding students to share their problem-solving approaches, including explanations. In the "Facilitation Notes" for Module 4, Topic 2, Lesson 1, for the "Talk the Talk" task at the end of the lesson, guidance states, "Have students work with a partner or in a group to complete Questions 1 through 2. Share responses as a class." Question 1 has students complete a table with justifications for each component, while question 2 is "Explain why the x- and y-coordinates of the points where the graphs of a system intersect are solutions." A margin note in the teacher edition states, "Encourage students to restate or explain the information in their own words."
- Materials support teachers in guiding students to share and reflect on their problem-solving approaches, including justifications. The *Algebra 1 Course and Implementation Guide* found in the front of the *Teacher Edition (TE)* outlines the product's "Instructional Design." During collaborative activities and peer work analysis, students give and receive feedback, which leads to verifying, clarifying, and/or improving the strategy. Using the "Topic Self-Reflection and Assessment Reflection" tools, students reflect on their own learning.
- Materials support teachers in guiding students to share and reflect on their problem-solving approaches, including arguments and justifications in the form of "Questions to Support Discourse." Module 1, Topic 1, Introduction to the Problem-Solving Model and Learning Resources, Activity 1.1 includes "Reflecting and Justifying" questions teachers should ask students, such as, "Did you use your initial strategy? Explain your reasoning. Is there another strategy you could use? Explain your reasoning."

Materials offer prompts and guidance to assist teachers in providing explanatory feedback based on student responses and anticipated misconceptions.

- Materials include prompts and guidance to assist teachers in providing explanatory feedback based on anticipated misconceptions in the "Lesson Overview" portion of the *TE*. In Module 3, Topic 2, Lesson 1, Activity 1.3, the "Common Misconception" guidance states, "Students may think that the graph of Isabella's situation is no longer a line since there are two different rates. Remind students that they are interested in the total amount saved per week, not the amount deposited... Students may confuse infinite solutions with all real numbers. Ask students to identify coordinate pairs that are solutions and coordinate pairs that are not solutions. Discuss the fact that all the points that lie on the line are solutions, but all coordinate pairs on the coordinate grid are not solutions."
- Materials offer prompts and guidance to assist teachers in providing explanatory feedback based on anticipated misconceptions in the "Teacher Facilitation Notes." For example, in Module 2, Topic 1, Activity 4.2, Teacher Facilitation Notes, the "Common Misconception" states, "It may be counterintuitive to students that x=a constant is parallel to the y-axis, and y = a constant is parallel to the x-axis. Instead of focusing on what axis the equation is parallel to, have them focus on what axis the line intersects; for example, x = -2 intersects the x-axis at -2, and y = -6 intersects the y-axis at -6. Prompts offered under "Questions to Support Discourse" immediately after "Common Misconceptions" include, "When given ordered pairs, how do you know what variable and value to use for your equation?", "Why can't you write this equation in y = mx + b form?" and "Why does it make sense that the slope is undefined?".
- Materials offer prompts and guidance to assist teachers in providing explanatory feedback based on student responses. For example, Module 2, Topic 1, Lesson 4, "Talk the Talk" asks students to identify if 6 equations are in slope-intercept form or point-slope form. Correct student sample responses are included in the "Teacher Lesson Answer Key", and teachers are provided probing questions in "Questions to Support Discourse." Such questions include "What equations are in the same form? How can you tell?", "Is part (d) in slope-intercept form? How could you rewrite it as y = mx + b?" In "Common Misconception" for this activity, teachers can read, "When determining a point that lies on a line from point-slope form, students often make sign errors. Work backward from an example and discuss how when a point is substituted into $y - y_1 = m(x - x_1)$, the signs in front of x_1 and y_1 are negative signs, taking the opposite of the substituted coordinates of the point."