

IMRA Review Cycle 2024 Report



Publisher Name	Program Name
Agile Mind, Inc.	Texas Algebra I
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 0

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

Alleged Factual Errors 2

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 0

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 and support academic vocabulary and comprehension.
- 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

Agile Mind *Texas Algebra 1* is a 9–12 Mathematics program. This instructional material provides a comprehensive approach to teaching Algebra I, featuring a well-structured scope and sequence that clearly outlines the concepts and knowledge covered in each unit. Each unit is accompanied by an *Advice for Instruction* that includes pacing, detailed unit overviews, essential background information, academic vocabulary, and detailed daily lesson guides to support effective instruction.

Campus and district instructional leaders should consider the following:

- Teachers may benefit from additional guidance in interpreting student performance data and identifying actionable next steps to address individual student needs. Providing professional development or resources in this area can strengthen their ability to implement data-driven instruction effectively. The program includes tools for students to track their progress and growth, which promotes self-directed learning, but offering targeted support for teachers will ensure they can fully utilize these tools to benefit all students.
- The program includes professional support essays for teachers and instructional leaders, offering guidance on how to effectively use the materials to support all students. However, both novice and experienced teachers may benefit from additional support to navigate the materials and

ensure that all students, including students receiving Special Education services and Emergent Bilingual students, receive the appropriate support throughout their learning journey.

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 Texas Essential Knowledge and Skills (TEKS), English Language Proficiency Standards (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 through 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 in 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.

- The materials include a scope and sequence for the Algebra I course in the Professional Support materials sidebar. The scope and sequence outline the progression of math concepts and knowledge taught in the 18 topics within the course. The scope and sequence include a description of the concepts and knowledge to be learned throughout the course. For example, Topic 13 states, "In this topic students explore the basics of arithmetic and geometric sequences and connect them to linear and exponential functions."
- The scope and sequence outline the TEKS and ELPS for each topic. For example, Topic 1 includes TEKS A.2A and A.12A and ELPS A.1D, A.1F, A.2E, A.3C, A.3G, A.4C, and A.4E. The scope and sequence also indicate the readiness and supporting standards.

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).

- The course planning and pacing documents include an Algebra I Year-at-a-Glance document which includes three separate pacing guides for 138-143 days, 165 days, and 180 days of instruction. The materials provide suggestions for the number of days teachers devote to each topic and the TEKS covered in that timeframe.
- The document has three suggestions for the number of days taught by the pacing guide. The pacing guide suggests how many days to give to each topic, lesson, and TEKS. For example, the pacing guide for 180 days of instruction indicates 16 days should be spent on Unit 1, with 7 of those days spent on Topic 1 and 9 days on Topic 2.
- The resources contain lessons and activities for an entire school year as shown by the course planning and pacing guides. The topics can be implemented for various instructional calendars, including 165 and 180 days of instruction.

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

- The course planning and pacing documents include a course rationale that provides a course overview, describes the connection to the TEKS and ELPS, and explains how the concepts connect throughout the order of the course. The document explains, "The focus is first on understanding various function types and their characteristics, then solving equations. With this functional foundation, students can see how solving an equation arises naturally from the related function."
- The materials include a course rationale that explains the course beginnings by stating, "Students formalize the concept of a function and extend their earlier middle school work. One key feature of the Agile Mind Algebra I course is the placement of content at the point in which students need the relevant skills or understanding."
- The materials include a progression chart that demonstrates how units relate to the TEKS, competencies, and recurring topics throughout lessons.

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

- The materials, found under "Topic content, Lesson, Deliver instruction," provide comprehensive teacher guidance for the instructional block. This includes goals and objectives, opening and framing questions, and detailed lesson activities for each page. These activities offer strategies, technology tips, and questioning guidance to facilitate lesson internalization.
- The materials provide explanations of the connections to prior grade levels and the significance of the skills for current and future lessons. Goals and objectives for the unit are provided in a bulleted list, followed by a list of prerequisite skills students need to be successful. Each lesson is listed with a summary of skills students will learn by the end of class.
- The materials include topic and lesson internalization protocols that provide instructions on how to go through and annotate lessons, link lessons to tasks or assessments, and foresee areas in which students could require assistance.

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

- The Leadership Guide to Success resource, included in the Professional Support Overview tab, contains a checklist, timeline, and key milestones for leaders to ensure successful implementation. A classroom observation guide is also provided to rate various implementation indicators based on the teacher's level of use. This guide includes four categories, each with specific indicators. Administrators and/or instructional coaches can use the guide to offer feedback to teachers. In the section "Structures for Successful Implementation: A Checklist for Leaders," it states: "The following are some critical elements of a successful implementation. Use this chart to develop plans and monitor progress for each structure or strategy within your school or district." The checklist serves as a tool for administrators to utilize while observing a classroom to ensure that the materials are being implemented as designed.
- The materials include a Professional Support sidebar within the Professional Support Overview that provides information about live lessons, stating, "In addition to the support in our system, we offer ongoing professional learning opportunities to teachers and leaders to assist you in making the best use of our programs." The description for coaches and instructional leaders states, "These sessions explore how education leaders can make the most of their implementation and equip leaders with tools and guidance to support their teachers."

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.

- For each topic, the materials include a Prepare Instruction section, which includes an overview of the topic, goals and objectives, the topic at a glance, prerequisite skills, additional resources, and language supports.
- The Topic Content sidebar for each topic contains a Vocabulary section. The section provides a list of vocabulary words used within the lessons. Each word is linked to the Glossary to provide a definition and a pictorial representation or example. For instance, in Topic 2: Multiple Representations in the Real World, when "graphical representation" is clicked on, the platform moves to the definition in the Glossary which states, "A graphical representation of a problem situation is a graph of the data from the problem situation. The image shows a graphical representation of the relationship between the length of a square swimming pool and the number of tiles in the swimming pool's border." An image showing the graphical representation is also displayed.
- The materials in the Prepare Instruction tab include a section titled "About This Topic" which provides context on how topics connect to prior lessons and grade levels, along with the necessary background knowledge for instruction. For example, in Topic 1: Constructing Graphs, it states, "Students learned how to plot points in the Cartesian plane in early grades. Many students can create an accurate graph of given data but can't represent it in a manner that makes sense to them. Since this course focuses on functions and their graphs, it is crucial that students understand how to create and read graphs correctly."

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

- The sidebar Course Materials includes the tab Support for Families. The link takes you to the Support for Student and Families site. Included on this site is a video to help families get started with Agile Mind. The video "provides an introduction to Agile Mind programs and tools, and how these resources are used to support students' learning."
- The Support for Families site includes a video for families on "Monitoring Progress with Agile Mind." The video "provides guidance for engaging with Agile Mind's Assignments and Quizzes and using their associated reports to monitor progress."
- The Support for Families site includes a downloadable PDF titled "Quick Start Guide for Families" that "shares key features and navigation tools." This document is available in both Spanish and English.

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).	0/1

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 (e.g., homework, extension, enrichment).

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 include structured lesson plans in the 'Deliver Instruction' section, detailing timing, objectives, questions, assignments, and assessments with step-by-step support. For example, the timing for Topic 10, Lesson 1 is 10 minutes for Opening and framing questions, 35 minutes for lesson activities, and 5 minutes for further questions.
- The materials include a comprehensive list of information for teaching activities in the Prepare Instruction section, including additional materials. For example, for Topic 10 the additional materials needed include calculators, 1:1 computers or tablets, and the Agile Mind Glossary.
- Under 'Prepare Instructional Materials,' the exercises and questions are designed to enhance students' language skills, aligning with the English Language Proficiency Standards (ELPS) and teaching strategies for grade-level competencies. These strategies include opportunities for practice, discussion, and constructive problem-solving.

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

- The materials include instructions for tasks that balance conceptual understanding, procedural skill fluency, and application to help students apply their learning, found under 'Topic Content' and 'Deliver instruction.'
- The materials include suggestions for delivering instruction, including pacing and timing for lessons and activities found under 'Topic Content' and then 'Deliver Instruction'.
- The materials include a 'Deliver Instruction' section with detailed lesson plans, including total and component-specific timing, such as 45 minutes for Lesson 5 with breakdowns for each part.

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

- The materials include a 'Deliver Instruction' section that lists the goals and objectives for the lesson. Within the lesson activities, there is guidance on each page that provides teacher tips, questions to ask, language strategies, support for emergent bilingual students and other special populations, technology tips, and other methods and strategies as applicable to the lesson. For example, in Topic 4, Lesson 8, the language strategy states, "Throughout this lesson, be sure to give students plenty of time to talk about the patterns they see in the first and second differences and the shape of the graphs of the data. With each situation, the students will have an opportunity to practice using the vocabulary of rate, ratio, constant, linear, increasing, decreasing, first differences, and second differences."
- The materials include teacher files such as printable overviews and answer keys, and student-facing files like activity sheets and constructed response items.
- The materials include a Prepare Instruction section with lesson files and additional resources. For example, additional resources needed for Topic 11 include 1x1 cubes, patty paper, and chart paper.

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

- The materials, located in the 'Staying Sharp' section of the topic files for each topic, include opportunities for students to study and apply new information, connecting their learning to real-world activities and spiraling throughout the year for retention and mastery.
- The materials, found in the Topic Content: Lesson #: Deliver Instruction section, include detailed differentiation strategies, suggested activities, and group/partner exercises for each lesson.
- The materials include 'Further Questions' and 'Suggested Assignments' at the end of each instructional block, which is a specific section designed to cover particular topics in depth, with some blocks offering extra practice homework that provides immediate feedback on the skills learned.

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

The 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.

- The materials include the 'Agile Mind's Approach to Assessment' guide, which includes diagnostic, formative, and summative tests at the topic and lesson levels to gauge students' comprehension of mathematical concepts and skills.
- The materials, found under 'Topic Content' and 'Agile Assessment,' include different formats for online assessment questions, including short-constructed response, drag and drop, short answer, multiple choice, graphing, and multiple selection item types.
- The materials include lesson activity pages with interactive components, checks, and problems to solve, located under Topic 17, Lesson 8, Assessment pages 1–16, where students can demonstrate mastery, practice learning, and receive immediate feedback. Additionally, 'Staying Sharp' printable questions are suggested for use at the end of two lessons in each topic to practice skills learned. Online materials provide teachers with an assessment bank of questions and examples of diagnostic tests for topics/units and lessons.
- The materials include a 'Topic Content' sidebar that offers a variety of assessment opportunities at the lesson level. The 'Deliver Instruction' page includes guidance on facilitating classroom conversations to assess students before the lesson and for acquired

knowledge throughout the lesson. Lesson activities are designed to formally assess students' progress through various methods, including videos, questions with built-in "check" buttons for immediate feedback, and interactive graphs. Each lesson concludes with practice activities such as additional questions on the student activity sheet, constructed responses, staying sharp review skills, and online items.

- The materials include a 'Topic Quiz' for the final lesson in each topic, located under 'Topic Content.' The goals and objectives specify that this lesson serves as a comprehensive assessment of the topic, featuring both online items and/or a constructed response handout.
- The materials include an 'Agile Assessment' sample diagnostic test, located under 'Topic Content' and 'Agile Assessment,' which assesses students' prerequisite knowledge of solving one- and two-step equations and inequalities. This assessment offers an opportunity to review grade 7 skills, helping to guide instruction for the upcoming Algebra I topic.

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

- The materials define diagnostic tests to provide baseline information on students' basic knowledge or proficiency. They also define formative assessments to guide instructional decisions, identify misconceptions, assist in adjustments, and gauge progress. Summative assessments are defined as evaluating learning, skill acquisition, and achievement at the end of a topic, semester, or academic year.
- The materials include the 'Agile Mind's Approach to Assessment,' which states, "Diagnostic assessments are short assessments of students' knowledge and skills, given before instruction" and "The purpose of formative assessments is to elicit evidence that helps students and teachers identify strengths, misconceptions, and errors, and monitor progress toward identified success criteria."
- The materials include the intended purpose of assessments at the end of each topic in the last lesson under the 'Deliver Instruction' section. For example, Topic 1, Lesson 5 states, "This lesson is intended for a topic-level assessment."

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

- The materials under 'Practice and Assessments' include instructions that teachers can use to administer tests, such as scheduling suggestions for different class periods or days. Additionally, the materials provide suggestions for how many questions to include in an assessment.
- The materials include teacher guidance for formative assessments in the 'Getting Started with Agile Mind' sidebar and the 'Practice and Assessments' section. This information provides teachers with the frequency and focus of test administrations. These pages and videos also guide teachers on the use of score reports for any assignment, practice, or assessment administered to students.

- The materials include a 'Deliver Instruction' section for each topic quiz that does not include details for consistent and accurate administration.

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

- The 'Agile Assessment' tab includes a 'Test Design' tool that allows you to create an assessment from a bank of questions. The items are correlated to the TEKS, topic, and lesson.
- The 'Agile Assessment' system has a test design alignment report for any test created within the program, including diagnostic, formative, or summative assessments. The report includes the alignment with the course topic and the TEKS, as well as the question type and complexity level.
- The materials included in the 'Professional Supports' sidebar provide guidelines for designing interim assessments. Each interim assessment includes a blueprint to aid in the design of the assessment. Each question includes an alignment to the course topic, the TEKS, and the complexity level.

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

- The materials include topic (unit) and lesson alignment including every assessment item's TEKS correlation and its correct answer listed in the key.
- The materials include an 'Agile Assessment' that includes a test design tool that allows the teacher to create assessments by choosing questions from a bank of TEKS-aligned items. Each item includes the DOK level and alignment to the topic and lesson.
- Agile Assessment has a test design alignment report for any test created within the program, including diagnostic, formative, or summative assessments. The report includes the alignment with the course topic and the TEKS, as well as the question type and DOK level.
- The materials include the 'Professional Supports' sidebar that provides guidelines for designing interim assessments. Each interim assessment includes a blueprint to aid in the design of the assessment. Each question includes the course topic, the TEKS, and the complexity level.

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

Instructional assessments that are standards–aligned items at varying levels of complexity. 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.

- The materials include reports through the online Dashboard & Reports feature, available in Agile Mind Assessment Center and Corequisite Support Guide - Professional Support - Course Planning, to help teachers understand student performance. These reports detail TEKS alignment, total scores, time spent on each assignment, number of attempts per question, and submitted answers. The materials include guidance for interpreting scores in a training video in the Professional Support sidebar under "Getting Started with Agile Minds: Practice & Assessments." The video demonstrates how teachers can utilize the dashboard to interpret the assessment data.
- Materials include an Assessment Guide that guides using reports to determine performance by state standards, followed by connecting student strengths and weaknesses with targeted opportunities to reinforce knowledge and skills in specified, upcoming lessons.
- The materials include the Agile Assessment item and answer bank that provides questions and a possible rationale for incorrect answers. The guidance aids teachers in interpreting possible student misconceptions.
- The materials include the Algebra 1 Corequisite Support guide for "just-in-time instruction to accelerate necessary learning from prior grades to ensure students can access and engage in related Algebra content." The guide provides a formative assessment "to assess whether your students will need corequisite supports." Based on the evaluation of the assessment, additional lessons are provided to ensure students are ready for grade-level instruction. For example, in Topic 7, Lesson 2, the materials recommend using Lesson 4, Lesson activities from the Appendix stating, "If students need corequisites support with solving linear equations, before teaching Lesson 2: More solving linear equations, review multi-step equations using Lesson 4 activity from the appendix topic Solving linear equations."

Additionally, the materials provide recommendations for additional practice stating, "To solidify these corequisite skills, assign additional practice from the appendix topic."

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

- The materials provide instructional strategies that can be used to support students who show a need for more one-on-one support, located in the Corequisite Support Guide, Professional Support, Course Planning. These techniques might be unique to a lesson or skill, or they could be part of a different resource.
- The materials include an "Assessment Processing Routine" found toward the bottom of the list of topics/units in the Classroom Routines section. This leads the teacher and students to analyze which questions and skills they performed well on, and which ones are needed for improvement. Students then rework the problems they missed and record what they learned from their mistakes.
- The materials include the "Deliver Instruction" page that guides how to facilitate conversation with your students and how to work together to identify strengths and areas for improvement from an assessment.
- The materials include the Algebra I Corequisite Support guide for "just-in-time instruction to accelerate necessary learning from prior grades to ensure students can access and engage in related Algebra I content." The guide provides a formative assessment "to assess whether your students will need corequisite supports." Based on the evaluation of the assessment, additional lessons are provided to ensure students are ready for grade-level instruction.

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

- The materials include tools for student self-reflection and error review, allowing students to understand their learning needs and set individual goals in the "Classroom Routines" tab, which includes the "Classroom Routines" section that provides an "Assessment Process Routine" for students to track their own growth. The assessment process routine provides a structure for students to identify assessment items on which they performed well and items on which they did not perform well, with instructions to re-work missed items to identify mistakes and misconceptions.
- On the "Support for Students and Families" webpage, the "Quick Start Guide for Texas Families" includes online reports accessible to students to help them monitor their progress and performance on assignments, quizzes, and tests. This section includes support for families and tools for students to keep on track and focus on their progress.
- The materials include a student dashboard that provides direct access to monitor progress and growth on practice questions and assessments as well as online tools to help students track their progression throughout the course.

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 (scaffolded) 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 (e.g., figurative language, idioms, academic language). 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.

- The materials include questions to support student comprehension and differentiated instruction in the Deliver Instruction section. In Topic 3, Lesson 5, teachers are provided with ideas on how to differentiate the learning environment by using pairs, small groups, and scaffolding with the practice pages and questions that pair with the lesson.
- The materials provide teachers with sentence starters to assist students in articulating their thoughts and to support the differentiation of instruction for Emergent Bilingual (EB) students and other student groups. Additionally, Topic 7, Lesson 1 provides a suggestion that allows the teacher the opportunity to respond to the needs of students with a hands-on concrete approach using Algebra tiles, if needed.
- The materials include the Algebra I Corequisite Support Guide for Texas which provides "just-in-time instruction to accelerate necessary learning from prior grades to ensure students can access and engage in related Algebra content." The guide provides a formative assessment "to assess whether students will need corequisite supports." Based on the evaluation of the assessment, paired lessons are provided to ensure students are ready for grade-level instruction.

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

- The materials include the Algebra I Corequisite Support Guide for Texas which provides pre-teaching vocabulary with definitions that are understandable to students.
- The materials include support for vocabulary in the teacher guidance of the Deliver Instruction section by providing teachers with an embedded list of bolded words students will need familiarity with during the lesson. In Topic 3, Lesson 1, teachers are encouraged to utilize a "word wall" using several words before the lesson begins. Students then use the words to write a sentence at their desks while teachers observe which students are able to make connections between the vocabulary terms.
- The materials include Lesson Activities that include embedded language support throughout and are labeled as "Language Notes." The notes are drop-down options that provide guidance for unfamiliar vocabulary or references in the text. For example, Topic 1, Lesson 1 includes a language note on the word "scale" explaining how the word can have different meanings in various contexts.

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

- The materials include a lesson titled "Apply What You Know" which provides students enrichment and extension opportunities through real-world tasks. For example, Topic 5, Lesson 5, Lesson Activities include Constructed Response tasks in which students apply and extend their understanding of slope and y-intercept to real-world situations.
- Materials include teacher guidance for differentiated instruction and extension activities for students proficient in grade-level content and skills. For example, in Topic 6, Lesson 5, Deliver Instruction includes a bullet for Differentiation. This bullet provides guidance for the teacher on how to extend the activity stating, "You can differentiate this lesson for students to provide an additional challenge for students by giving them graphs of generic functions, not necessarily linear, and asking them to translate based on a rule."
- Materials include teacher guidance for differentiated instruction for students who have demonstrated proficiency in grade-level content and skills. For example, in Topic 3, Lesson 5, Deliver Instruction, Lesson Activities, Differentiation guidance is provided for the teacher on how to differentiate the learning environment stating, "Depending on the needs of your students, you may choose to differentiate the learning environment for students."
- Under the Professional Support section, essays on content, pedagogy, and practice are included, specifically an essay titled, "Differentiated Instruction for Student Success," which provides strategies to differentiate instruction for students through the content, process, product, and learning environment.

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

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).

- The materials include prompts and guided instructions in the Deliver Instruction section of Topic 1, Lessons 1 and 2, to assist the teacher in directly communicating, clarifying, and modeling the concepts.
- The materials include the Deliver Instruction section provided for each lesson that includes teacher guidance. For example, Topic 2, Lesson 2 uses words and phrases like "remind students of[.].," "spend a few minutes discussing the framing questions," "pair students," "ask each pair to model," and "ask students to share their representations."
- The materials include the Deliver Instruction section found within each lesson which provides prompts and guidance to support the teacher with each part of the lesson. The lesson plans provide direct questioning, classroom strategies, and technology tips to support the delivery of instruction through modeling, explaining, and communicating.

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

- The materials include the Prepare Instruction section, which provides advice for teachers on how to facilitate lessons effectively so that students can solve problems, reason, and make sense of the world.
- The Deliver Instruction section includes teacher guidance and recommendations for all stages of the lesson. For example, Topic 2, Lesson 2 uses approaches including questioning,

comparing, peer-to-peer sharing, modeling, sketching, and making connections for lesson delivery and facilitation.

- The materials include the Deliver Instruction section, which provides detailed guidance and recommendations on implementing the lesson from open to close using a variety of instructional approaches. Lessons include opportunities for whole-class discussion, student-led exploration of the online material, student-to-student interaction (pairs and/or groups), student presentations, and time for independent practice. The materials also provide detailed instruction on incorporating technology and manipulatives when appropriate.

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

- The materials include distinct headers and labels. For instance, within Topic 1 "Constructing Graphs Overview," these elements assist instructors in implementing various forms of differentiated practice (guided, independent, and collaborative) integrated into the lesson framework.
- The materials include the Deliver Instruction section found within each lesson that guides multiple types of practice and recommended structure for students. Each topic includes opportunities for whole-group instruction, guided practice, interactive animations, and independent practice. The guidance states specifically when students should work in large groups, pairs, and independently. For example, Topic 10, Lesson 2 begins with a whole-group discussion, moves to exploration in pairs, and ends with students working individually. The materials also include videos, puzzles, and practice materials for each lesson.
- The materials include practice prompts and opportunities for guided questioning, collaboration, and independent work through the lesson cycles. One example is found in Topic 2, Lesson 4, where questioning is provided for the whole-group instructional model, while the modeling with Algebra tiles and questions to answer is collaborative and independent.

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 in the "Prepare Instruction" section include support for students in the form of multilevel aids, including word banks, visual organizers, and sentence stems. Additionally, when applicable, the materials highlight collateral vocabulary words that non-native speakers may struggle with.
- The materials include linguistic accommodation guidance throughout the topics and lessons in the "Language Support" and "Support for ELL/other special populations" sections of the "Deliver Instruction" and "Prepare for Instruction" tabs. For example, Topic 2, Lesson 6, includes question stems for the teacher to help students who may struggle to interact with and critique a peer's work on the constructed-response item.
- The materials include a "Professional Support" section featuring an essay titled "Teaching English Language Learners" which provides guidance on linguistic accommodations. The essay offers specific high-yield teaching strategies and includes design elements of the

materials that support rich learning for emergent bilingual students. It includes explicit strategies for vocabulary acquisition, building conceptual understanding, fostering student discourse, and leveraging formative assessments.

- The Algebra 1 materials include teacher guidance on providing linguistic accommodations for various levels of language proficiency designed to engage students in using increasingly more academic language throughout each topic. For example, in the "Prepare Instruction" Section for "Topic 14," the "Language Support" lists the core vocabulary and explains that visuals will be used throughout the topic to connect students to the concepts. It states, "These connections will deepen the understanding of the vocabulary of the topic. The multiple representations within this topic illustrate how essential the variety of learning models is to the depth of student understanding." This guidance includes teacher instruction for various levels of language.
- The materials include a "Professional Support" section with an essay offering guidance on providing linguistic accommodations. The essay offers specific high-yield teaching strategies and includes design elements of the materials that support rich learning for ELL students. It includes explicit strategies for vocabulary acquisition, building conceptual understanding, fostering student discourse, and leveraging formative assessments.

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

- The materials include information on state-approved bilingual and ESL programs and provide ongoing guidance for emergent bilingual students throughout the teacher-facing instructions. The resources include an essay titled "Teaching English Language Learners," which offers specific high yield teaching strategies and highlights key design elements of the Agile Mind system to support rich learning for emergent bilingual students. It includes explicit strategies for vocabulary acquisition, building conceptual understanding, fostering student discourse, and utilizing formative assessments.
- The materials include the Algebra I Scope and Sequence, which directly aligns with the state-approved bilingual/ESL programs. Each topic within the scope and sequence lists the specific ELPS addressed.
- The materials include the "Professional Support" section, which includes an essay titled "Teaching English Language Learners." This essay includes guidance on providing linguistic accommodations and specific high yield teaching strategies. It also includes design elements of the materials that support rich learning for emergent bilingual students. It includes explicit strategies for vocabulary acquisition, building conceptual understanding, fostering student discourse, and utilizing formative assessments.

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.

- The materials include strategies such as self-monitoring, self-checking, explicit modeling, and vocabulary walls to help students develop their academic vocabulary throughout the unit.
- The materials provide evidence for written discourse to build academic vocabulary, increase comprehension, build background knowledge, and make cross-linguistic connections in the "Prepare Instruction" tab of Topic 1. Teachers are guided to have all students keep a vocabulary notebook, with special instructions for emergent bilingual students. Guidance also includes maintaining a classroom word wall and adding to it as words are learned.
- The materials include the "Prepare Instruction" section in Topic 1 which guides teachers in promoting oral discourse with students. Teachers are encouraged to pair emergent bilingual students with native English speakers and use pairing strategies such as think-pair-share and echo repeat.
- The materials include the "Deliver Instruction" section which provides embedded supports and guidance for content vocabulary, background knowledge, making connections, and developing comprehension through both oral and written tasks. For example, Topic 3, Lesson 1 includes guidance on utilizing the "language notes" throughout the lesson activities, incorporating word walls and vocabulary notebooks, and allowing time for students to read and write function statements.
- The materials include the "Professional Support" section which includes an essay titled "Teaching English Language Learners" which provides guidance on providing linguistic accommodations. The essay offers specific high-yield teaching strategies and highlights key design elements of the Agile Mind system that support rich learning for emergent bilingual students. It includes explicit strategies for vocabulary acquisition, building conceptual understanding, fostering student discourse, and leveraging formative assessments throughout the instruction guidance.

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

- The materials are not designed for dual language immersion (DLI) programs. Each unit includes a link for Vocabulary which links to a list of vocabulary for the unit. The terms are hyperlinked to a page that includes the definition and a visual representation. For example, in Topic 3: Functions, the word term is defined as "a single expression being added in a polynomial." Beneath the definition is a visual representation of the example of a polynomial with the terms identified. A text-to-speech option is included for the polynomials and terms.
- The essay "Teaching English Language Learners" provides strategies and explains the material's design elements to support the learning for emergent bilingual students. The essay includes recommendations and suggestions for building academic vocabulary with explicit strategies for vocabulary acquisition, including vocabulary notebooks and word walls. The essay explains how teachers can assist students as they bridge vocabulary acquisition to conceptual understanding by using multiple representations to develop deeper

understanding. The essay includes insight into fostering student discourse, using formative assessments, and supporting other special learners. Each of those topics within the essay includes explicit strategies, such as think-write-pair-share, learning goals, exit tickets, and principles from Universal Design for Learning. The material includes suggestions to address the transfer of metalinguistic skills from English to the partner language by having emergent bilingual students pair with native English speakers.

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

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. 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.

- The materials include topic practices and quizzes throughout the course. These quizzes feature a variety of assessment question types, such as multi-select, open-ended short answer, drag-and-drop, and constructed response items, all of which require deeper thinking from students. These practice opportunities ensure students demonstrate a depth of understanding aligned with the TEKS. One series of examples is found in Topic 5, Lesson 10, which includes a variety of question types.
- The materials include online practice opportunities that offer various question styles to demonstrate understanding and are aligned with the TEKS. For example, Topic 4, Lesson 9 includes an online assessment consisting of multiple-choice, numerical responses, multi-select, inline choice, and graphing. The lesson also includes a constructed response multipart real-world problem. These practice opportunities require students to demonstrate a depth of understanding aligned with the TEKS, ensuring mastery at various levels.
- The materials include practice opportunities ranging from defining new vocabulary to applying recently learned skills within real-world contexts and justifying responses. These opportunities go beyond rote memorization and repeated algorithms, requiring students to apply their knowledge in various ways. This approach ensures students demonstrate a depth of understanding aligned with the TEKS.

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

- The materials include activities that allow students to answer questions using fill-in-the-blank, drag-and-drop, inline choice, multiple-choice, and multi-select. There are also practice worksheets available. With these worksheets, teachers can choose short or long answer

responses for questions on quizzes and tests. Questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards.

- The materials include student practice and activity sheets that increase in complexity by building on previously learned skills. For example, in the Student Activity Sheet for Topic 14, Lesson 1, students start by plotting ordered pairs and filling in tables of data, then move on to finding the slope, writing a function rule, and eventually applying the skill to a real-world scenario. Both tasks and questions progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards.
- The materials include a task designed to start with questions that are slightly below the grade-level difficulty to scaffold the concept and activate prior knowledge. Most tasks conclude with questions intended to challenge students' thinking and offer opportunities to connect their learning to new concepts. For example, the Topic 14 lesson includes a task for students to compare the graphs of linear and quadratic functions. The task begins with a graphical approach, labeling a diagram, and filling in the blank questions. Students then transition to identifying the intersection graphically, and then algebraically. The task ends with a higher-level question about a general linear equation, utilizing algebra to prove the answer. These questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards.
- The materials include the Deliver Instruction section for each lesson that provides guidance and questioning prompts, demonstrating a progression from previously learned skills to applying new knowledge. For example, Topic 5, Lesson 5 provides guidance on reviewing the geometric characteristics of parallel and perpendicular lines learned in prior grades and includes questioning prompts to help students connect the geometric characteristics with the current topic of slopes. These questions and tasks progressively increase in rigor and complexity, leading 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

The 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 materials include a Lesson Alignment section that provides a breakdown of each lesson, and the standards attached to it, demonstrating coherence across courses/grade bands through a logically sequenced and connected scope and sequence.
- The materials include a Course Rationale section which explains that "One key feature of the Agile Mind Algebra I course is the placement of content at the point in which students need the relevant skills or understanding," ensuring coherence across courses/grade bands.
- The materials include a "Scope and Sequence" document that provides a logically sequenced overview of each topic covered in Algebra I and an appendix of additional topics. These additional lessons and activities "provide support for key skills from earlier grades and corequisite skills students may need to be successful with concepts in this course," demonstrating coherence across courses/grade bands and connecting Algebra I content to grades 5–8.
- The Algebra I course includes five topics to review and solidify previously learned skills, contributing to the overall 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.

- The materials include a Course Rationale section that outlines the concepts introduced in middle school and explains how they prepare students for the topics covered or expanded upon in the textbook. The Course Rationale section also explains the reasoning for the order of the textbook topics. For example, this document states, "Students make connections between the pattern of constant addition in linear functions and constant multiplication in exponential functions."
- The materials include the Course Rationale section, which describes the design of the course to focus "first on understanding various function types and their characteristics, then solving equations." The big idea of focusing first on understanding a function and then moving to solving an equation from the related function is repeated throughout the course, creating coherence between topics.
- The Course Rationale section also groups several topics together with a description connecting the big ideas and patterns between the various topics.
- The materials include the About This Topic section, which mentions the course's flow and connects big ideas with other courses.

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 include interactive essays titled "Developing Concepts Across Grades" that establish a vertical connection between the language being studied and the language that will be learned in subsequent courses or later in the course.
- The materials include the Prepare Instruction section for each topic that provides connections to prior and future learning. For example, Topic 15 states, "The topic Operations on Polynomials addresses polynomial multiplication, addition, and factoring, as well as polynomial division. Students are also introduced to the concept of a rational expression and its connection to polynomial division, foreshadowing future work with the arithmetic of rational expressions."
- The materials include the About This Topic section, which provides a general overview of the skills learned in that unit. The overview includes the prior knowledge the students will need to be successful, and a list of prerequisite skills is included for the topic. For example, Topic 10 states, "Students will revisit the laws of exponents previously learned in prior courses and extend their knowledge to include rational exponents."
- The materials include the Professional Support section, which provides a series of interactive essays for educators designed to "illustrate connections and deepen understanding around what students may have already learned and where they are headed on their journey." The essay topics include Functions, Volume, Rate, and Proportionality. The materials provide an opportunity for teachers to make connections between the content and language of previous and future grades/courses.

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

- The materials from "Topic 1 Deliver Instruction" help students understand ideas and procedures at the lesson level by connecting their prior knowledge from earlier topics or courses to new mathematical concepts and skills.
- The materials include a "Deliver Instruction" page for each lesson which has opening questions that connect to prior lessons and/or grade levels. An example is found in Topic 2, Lesson 1 where the "Deliver Instruction" page guides the teacher to "Give each student some Algebra tiles or square pattern blocks. Before students begin solving the problem posed in the lesson, use the scenario to briefly review important concepts in geometry and measurement by asking questions such as: What is a square? What is the difference between a yard and a square yard?"
- The materials include a "Deliver Instruction" page which provides guidance on connecting concepts and procedures from previous topics and/or grades. For example, Topic 9, Lesson 1 begins with allowing students time to solve a system of equations using a table or graph which are skills introduced in grade 8 and Topic 8 in this course. The problem does not intersect at integers which is designed to allow students to arrive at "the point where they are ready to learn an algebraic method." By connecting new skills to prior knowledge, students develop an understanding of various problem-solving methods and can transition more easily between different procedures.

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

The 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.

- The materials include the Consolidating Your Skills section that offers chances for quick and frequent retrieval exercises, integrating previously acquired knowledge and abilities throughout lessons and units.
- The materials include two "Staying Sharp" worksheets per topic. These worksheets are spaced out with a suggestion for the use of the first one in Lesson 1 and the second around Lessons 4–5. Previously learned skills and concepts are revisited in these worksheets. For example, in Topic 3 "Functions," the first "Staying Sharp" handout has students solve an equation, evaluate an expression, complete a table, and write an equation, all of which are skills from earlier lessons and grade levels.
- The materials include two "Staying Sharp" handouts that include practice questions designed to prepare students for upcoming lessons and practice skills and concepts learned previously. For example, in Topic 16, the "Staying Sharp 1" handout sets the stage for quadratic functions by examining patterns. Students also review prior skills in solving one-variable inequalities, function notation, and linear attributes; all are previously covered topics. The Skills & Concepts section provides space retrieval practice opportunities across lessons and units.

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

- The materials include interleaved practice through specific lessons titled "Consolidating Your Skills." Topic 7, Lesson 5 is one example of this where students are solving both linear equations and inequalities by estimating using graphs and solving using algebraic operations.
- The materials include "Staying Sharp" pages that provide students with opportunities to practice multiple skills and concepts on one page. Topic 10, "Staying Sharp 1" provides one question for students to practice both slope and intercepts within the same question and

another question that asks students to solve a system of equations but leaves it up to the student to decide which solution method to use.

- The materials include two "Staying Sharp" handouts to review prior concepts and skills. The handout includes a variety of problems with no guidance on how to solve them. The student must apply previously learned knowledge to the interleaved practice. For example, Topic 3, "Staying Sharp 1" includes problems covering solving equations, evaluating expressions, proportional relationships, and real number properties.

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

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

- The materials include Topic 4 Constructed Response questions and assignments that offer problem situations encouraging students to work with various models and representations to understand, assess, and evaluate different ideas.
- The materials include questions and tasks that require students to work with models and representations to interpret, analyze, and evaluate. One example is found in Topic 7, Lesson 6 where students are asked to modify a graph to make an inequality true and then to write an inequality given a linear inequality graph.
- The materials include lessons that begin with a real-world application related to the upcoming concepts that require students to analyze, interpret, and evaluate the given information presented in a variety of ways. For example, Topic 8, Lesson 2 begins with a verbal representation of a systems of equation application problem involving a lawn care business for students to interpret and analyze. A visual is provided and students are asked to create an algebraic representation of the problem. The activity continues with a tabular representation and a graphical representation to evaluate the solution.

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

- The materials include the Topic 12, Lesson 6, Student Activity Sheet where there is a variety of models and representations for students to comprehend, analyze, and assess a range of topics through questions and assignments.

- The materials include questions and tasks that consistently require students to create a variety of models including graphs, algebra tile representations, drawings, and data depictions. Topic 2 has many examples of this indicator, including question 5 on the Student Activity Sheet for Lesson 2. Students are provided a description and a model and then asked to draw another model given different data.
- The materials include Constructed Response tasks for each topic which provide students with the opportunity to create a variety of models to represent a given real-world problem. The constructed responses elicit a higher level of thinking and application through the design of the questions and tasks. For example, Topic 8, Constructed Response 1 provides students with a problem scenario that they must represent verbally, algebraically, and tabularly/graphically.

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

- The materials include prompts for students to apply their conceptual understanding to new situations throughout the materials' questions and exercises.
- The materials include opportunities for students to apply their understanding to new situations and contexts throughout the materials. One example is found in Topic 6, Lesson 4 where students are provided a new situation, asked to collect data, and then answer several questions using the data they gather. This constructed response item comes after several lessons showing students how to create linear models. With this lesson, students are now applying their understanding to a problem of their own.
- The materials include a task "with questions designed to stretch students' thinking and to provide them with an opportunity to connect their learning to new concepts." These are tasks that allow students to choose their own approach. For example, the Topic 8 task states that it "provides an opportunity for students to reinforce processes for mathematical problem-solving as they represent geometric relationships using algebraic symbols; to solve equations and systems of equations by inspection; and to justify solutions." Students are presented with an open-ended problem in which they must choose and justify how to arrive at a solution by applying a conceptual understanding of systems of equations.

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

The 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.

- The materials include two Staying Sharp worksheets for each topic. The first is designed to be used for the first lesson of the unit and the second is to be used around Lesson 4. These printable sheets begin with a section titled "Preparing for Upcoming Lessons" containing about three questions designed to revisit skills from previous grade levels or lessons necessary for success in the upcoming lessons.
- The Appendix includes two extra topics to help solidify and build fluency with previously learned skills. The first topic "Solidifying Your Fluency with Computation" is designed so "students can review and strengthen their fluency with rational number operations as they work with positive whole numbers, decimals, and fractions." The second topic "Solidifying Your Skills with Equations" is designed so "students can review and strengthen their fluency with solving one-step and multi-step linear equations." Both of these skills are necessary to complete grade-level tasks.
- The materials include a lesson titled "Consolidating Your Skills" in Topics 7 and 17 where one focuses on linear functions and the other on quadratic functions. Each lesson "provides activities and tools [students] will use to reflect on their progress toward fluency and automaticity in these areas."

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

- The materials include daily warm-up activities that apply and reinforce previously learned methods. For example, in Topic 7, Lesson 5, the Student Activity Sheet requires students to solve and then graph the equation or inequality. The activity sheet provides a grid but the student draws the axis and labels it. There is a rubric provided to review and learn from and students are given another set to solve and graph for better understanding.
- The materials include Student Activity Sheets that provide opportunities for students to practice the application of mathematical procedures. For example, questions 8 and 9 in this document for Topic 17, Lesson 4 ask students to multiply binomials and factor polynomials, but students are free to choose the method that best fits. Every lesson has a student activity sheet with similar practice opportunities.
- The materials include a Student Activity Sheet with practice items for each lesson that "provide opportunities for practice and application of learned skills in familiar and new contexts." For example, Topic 17, Lesson 2 provides instruction on solving quadratics by factoring using both algebra tiles and area models. The printable activity sheet includes 10 practice problems on solving by factoring, and students may choose their preferred method. These items provide opportunities for practice and application of learned skills in familiar and new contexts.

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

- The materials include Constructed Response items to address the need for students to evaluate procedures, processes, and solutions. One instance is found in Topic 16, Lesson 6 where groups of students work with comparing area to perimeter of a rectangle given a real-world situation. Students find a solution to maximize the area of the rectangle given a set perimeter by altering the length and width. The teacher sets up a gallery walk or presentations where students discuss solution methods, emphasizing that multiple solution methods exist.
- The materials include the Deliver Instruction page for each lesson and provide questioning prompts that allow students to evaluate procedures and processes through class discussions. For example, Topic 9, Lesson 3 suggests asking, "How do you tell when solving by the substitution method might be difficult, so trying linear combination would be a good idea?" Question prompts like these allow students the opportunity to determine when a strategy is more efficient while being flexible to the idea that more than one method could work.
- The materials include Constructed Responses for each topic which often elicit students to evaluate their solutions for accuracy. For example, Topic 9, Constructed Response 1 has students set up and solve a system of equations. Part C asks students to explain their solution which provides the opportunity to evaluate the reasonableness of their solution.

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

- The materials include guidance on revisiting and reinforcing teachable moments that occur during lessons, as well as strategies to promote student responses and ideas. For example, Topic 3, Lesson 3 features specific guidance in the "Deliver Instruction" section on how to implement these strategies.
- The materials include teacher guidance provided for each lesson on the Deliver Instruction page. For Topic 9, Lesson 3 teachers are guided to lead students through solving a system of linear equations using substitution by revisiting the previous day's lesson. Teachers then ask students to consider how solving by combining the equations might be more efficient.
- The materials include the Deliver Instruction page which provides teacher guidance on anticipating different approaches and explaining when more efficient approaches exist. For example, in Topic 9, Lesson 3 classroom strategies are included to discuss the most efficient way to create opposite coefficients recognizing that adding coefficients makes the process easier than subtraction. Similar guidance is provided throughout the material when multiple approaches are appropriate.

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

The materials explicitly state how the conceptual and procedural emphasis of the TEKS are addressed. Questions and tasks that include the use of concrete models and manipulatives, pictorial representation (figures/drawings), and abstract representations. Materials include supports for students in connecting, creating, defining, and explaining concrete and representational models to abstract (symbolic/numerical/algorithmic) concepts.

Evidence includes, but is not limited to:

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

- The materials emphasize the standards being addressed, and each lesson is specifically designed to target these standards.
- The materials include the Prepare Instruction page for each topic and an About This Topic section where the skills to be learned are explained. This page for Topic 8 states, "Solving by graphs and tables before addressing the analytic techniques for solving systems develops students' conceptual understanding of what a solution to a system of equations means, and makes the algebraic methods covered in the next topic easier to comprehend" which explains both the conceptual and procedural components of the TEKS.
- The materials explicitly state how the conceptual and procedural emphasis of the TEKS are addressed. The Algebra I Scope and Sequence provides the TEKS, indicating whether the standards are readiness or supporting, and includes a Topic Description that explicitly outlines how these standards are addressed throughout the topic. This detailed alignment ensures that both the conceptual understanding and procedural skills required by the TEKS are comprehensively covered in the lessons.

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

- The materials include many questions and tasks that require the use of algebra tiles to represent real-life situations and/or algebraic equations or expressions. One online interactive example is found in Topic 2, Lesson 2, Interactive Lesson Activity page 4, where students drag-

and-drop tiles to model square swimming pool borders with given side lengths. Other pages in this lesson show algebra tiles that actually look like a pool by making the center tiles a blue water color with ripples and the border black to help solidify the concrete model as representing an actual drawing of the pool. Abstract representations are brought in by asking students to: "Study the animation to look for connections between the concrete models and a numerical representation that will help Anthony find the rule" and then showing the numerical representations on the screen in a table with the length and number of border tiles listed.

- The materials include online lesson activities for each topic that provide concrete models, digital manipulatives, interactive images, and abstract representations. For example, Topic 3, Lesson 3 investigates the rate of change in the water level as a pool is draining. The task begins with a pictorial representation of the pool draining, a concrete representation of the data in a table, and an abstract representation for the calculations.
- The materials include the Deliver Instruction page that provides guidance on helping students make connections from concrete representational to abstract concepts. For example, Topic 15, Lesson 2 includes classroom strategies on how to utilize color to help connect the algebra tiles to area models used in multiplying polynomials.

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

- The materials include supports for students to work with concrete and representational models for abstract concepts. One lesson which incorporates all of the components is Topic 2, Lesson 2. On the Deliver Instruction page, the materials have students connect models to numerical representation for a real-world scenario. Students model the problem with tiles and sketch their models, describe their models, and explain the connections to their classmates.
- The materials include opportunities for students to make connections from concrete and representational models to abstract concepts through interactive lesson activities. For example, Topic 15, Lesson 2 covers multiplying polynomials. The lesson activities include a review of the distributive property using integers to lead into the distributive property for expressions. The lesson also includes the area model as a way to represent the distributive property and the use of algebra tiles to aid as a concrete representation of the arithmetic of polynomial expressions. The online supports help students develop a conceptual understanding of multiplying polynomials.

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

The 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.

- The materials include vocabulary terms that are introduced intentionally throughout the materials many times in the lesson animations. One lesson animation which creates a need and purpose for new vocabulary is in Topic 10, Lesson 2 where students are shown a table of exponents applied to the number 3 and the result of raising the 3 to the various exponents. The second column in the table shows how to take the square root as the opposite of raising to the power of 2, the cube root as the opposite for the power of 3, and so on, while also showing the radicand sign and the index with vocabulary labels. This animation is provided as an opportunity for students to add these two new terms to their academic vocabulary.
- The materials include lesson activities that introduce and reinforce academic mathematical vocabulary through visuals and context of real-world scenarios. The vocabulary is introduced as the need arises naturally through exploration. For example, Topic 16, Lesson 1 introduces the vertex form of a quadratic through the context of kicking a ball. The word vertex is defined when discussing when and where the ball will reach the maximum height, which is also illustrated for the students.

- The materials include a glossary in both English and Spanish for students that includes definitions and visuals for academic mathematical language. The glossary aids students in developing grade-level vocabulary throughout the course.

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

- The materials include the Deliver Instruction page for each lesson and frequently offer teachers support for scaffolding students in their use of vocabulary. For example, Topic 5, Lesson 1 states, "Draw on students' informal vocabulary as they describe the y-intercept. Students may describe this feature as where the graph 'starts,' or where the graph crosses the y-axis. Connect these phrases to the more formal vocabulary of 'y-intercept.'" Teachers are then provided several sentence frames to guide the conversation.
- The materials include the Deliver Instruction page which includes guidance directly related to the development of academic vocabulary. For example, Topic 3, Lesson 6 "provides an opportunity for students to solidify their understanding of what makes a relationship a function and functional notation through the development of a written product." The Literacy Strategies include a list of questioning prompts to scaffold and support students as they reach a formal definition of the word function.
- The materials include the essay "Teaching English Language Learners" which provides explicit strategies for vocabulary acquisition such as vocabulary notebooks, think-alouds, echo repeats, and word walls.

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.

- The materials include the Deliver Instruction page, which provides guidance on using language and vocabulary effectively, including syntax. For example, in Topic 1, Lesson 1, students compare graphs and describe the similarities and differences aloud. Teachers are guided to help students refine their language from vague, non-academic statements to precise, mathematical language. Students are also encouraged to share their work with the class and explain their reasoning, allowing them to hear and use mathematical language with their peers.
- The Deliver Instruction page includes guidance on supporting and facilitating student conversations with academic vocabulary and appropriate syntax. For instance, in Topic 4, Lesson 3, students engage in small group discussions and present their work to the class. Question prompts guide these discussions, helping students connect constant rates of change with linear functions and use academic language correctly. The guidance also provides specific definitions and addresses common misconceptions, while the key to the

student activity sheet includes exemplar responses to support the effective use of mathematical language.

- The essay "Teaching English Language Learners" offers explicit strategies for vocabulary acquisition, including syntaxes such as vocabulary notebooks, think-alouds, echo repeats, and word walls. Think-alouds and echo repeats give students opportunities to speak and hear academic vocabulary, supporting their development of both vocabulary and syntax.

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

Process standards that 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 materials integrate process standards into every component, including lessons, student practice, and assessments. For example, the task in Topic 17 incorporates several process standards, such as selecting tools, creating and using multiple representations, and explaining arguments.
- The materials include real-world applications for each topic directly into the lessons which require students to utilize the process standards to demonstrate a conceptual understanding of mathematics. For example, Topic 2 lessons incorporate a real-world scenario involving tiling the perimeter of a pool. Students are expected to apply mathematics to a problem arising in everyday life where they must analyze the given information, communicate and make a plan, and justify their responses. These skills are directly reflected in the process standards.

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

- The materials include a description of process standard incorporation in the Course Rationale. The Course Rationale document states, "The Agile Mind Texas Algebra I course also provides rich contexts for engaging with the process standards. Algebraic models appear in the world around us and students can use algebraic language to communicate about the world. Students use various tools including technology, graphing calculators, graph paper, and algebra tiles as they explore the content of this course. These tools help students access

the information, process it in a way that makes sense to them, and build their conceptual understanding and flexibility in thinking. Multiple representations are also used extensively in the course, and students are expected to represent mathematical relationships in various ways. Students have multiple opportunities to apply a problem-solving process as they work through non-routine problems. As they are doing this, they work collaboratively with peers and communicate their ideas, both written and verbally."

- The materials include the Scope and Sequence document that provides a list of the process standards and states, "These processes should become the natural way in which students come to understand and do mathematics."
- The materials include the Course Rationale that provides a brief overview of how the process standards can be incorporated throughout the course.

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

- The materials include a thorough scope and sequence document that elaborates how the TEKS and process standards are incorporated and connected throughout the unit and across the course.
- The materials include the Year-At-A-Glance and Scope and Sequence documents which address the content standards as well as the process standards throughout the unit and course.

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

- The Scope and Sequence lists all process standards on the first page and details how each unit is addressed throughout the unit. It states, "Throughout this Algebra I course, students use mathematical processes to acquire and demonstrate mathematical understanding...These processes should become the natural way in which students come to understand and do mathematics." Additionally, the materials include the Algebra 1 Lesson Alignment for Texas document which illustrates alignment to content and process standards.
- The materials include lesson alignment documents that clarify the alignment of process standards to each lesson, as well as a narrative description for each topic. These descriptions explain how the process standards are incorporated into each lesson.
- The About this Topic section of the Prepare instruction includes an overview of the process standards incorporated into each lesson. For example, Topic 11, Nonlinear relationships, states that students will "begin to recognize patterns...work with concrete objects as they continue to connect the various representations of functions (concrete, verbal, algebraic, graphical)." This relates to process standard, 1E, analyze mathematical relationships to connect and communicate mathematical ideas.

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.

- The materials include problems that require students to think mathematically and persevere through solving problems. For example, Topic 17, Lesson 3, Student Activity Sheet, Question 15 prompts students to write a quadratic function with specific values for the zeros, drawing on their understanding of quadratics and how to solve them.
- The materials provide opportunities for students to think mathematically, persevere through solving problems, and make sense of mathematics. All lessons begin with framing questions that set the stage for discussing key concepts, encouraging deep thinking and exploration. Additionally, lessons include questions and tasks with diagrams to help students demonstrate reasoning and justify their thinking. For example, in Topic 8, Lesson 3 students adjust the horizontal shift of a graph and analyze its effects on a table, fostering mathematical thinking and perseverance in problem-solving.
- In each topic, the materials introduce a concept through a real-world scenario to provide an opportunity for students to think mathematically, persevere through solving problems, make sense of mathematics, and connect to the world around them. For example, Topic 5, Lesson 1 activities include two real-world scenarios to provide an overview of slope-intercept form. The first scenario is modeled by a skateboard drill and the second scenario is focused on the float in a gas tank. Both examples require students to think mathematically by creating multiple representations of the constant rate of change, while real-world examples help students make sense of mathematics.
- The materials include a Constructed Response task for each topic that requires students to think mathematically, persevere through problem-solving, and make sense of mathematics through a real-world open-ended problem. For example, Topic 8, Lesson 5, Constructed

Response 2 has students set up and graph a system of inequalities for a lawn care business. While students have graphed systems on inequalities previously in the topic, the solution region for this problem involves two parallel lines, which requires a deeper level of thinking to make sense of mathematics in the context of the problem. The design of the problem requires students to persevere through an unfamiliar problem to arrive at a correct interpretation.

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

- The materials support students in understanding that there are multiple ways of solving problems and completing tasks. Each lesson's Deliver Instruction opens with questions for students, many of which ask them to consider multiple ways of solving. For example, in Topic 9, Lesson 4 students are asked, "Does substitution or linear combination seem like a better strategy for solving the system?" Later, students discuss the advantages and disadvantages of each solution method and then explain their reasoning with their groups.
- The materials include the Deliver Instruction page to provide guidance for the teacher to support students when multiple strategies can be used to complete and solve questions and tasks. The guidance provides suggestions and question prompts to help students understand, explain, and justify different approaches. For example, in Topic 10, Lesson 4 students explore simplifying expressions with a power to a power. The teacher guidance suggests having students simplify an expression with a rational exponent in two ways: by rewriting the root raised to a power and by using the power rule. These two strategies help students understand, explain, and justify the definition of rational exponents.
- The materials include a Constructed Response task that asks students to solve a problem in multiple ways. For example, Topic 7, Constructed Response 1 requires students to solve a set of three equations graphically, algebraically, and using a table. Students are asked to explain how the different methods each help determine the type of solution the equation will have.

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

- The materials include questions that allow students to analyze information, reflect, and revise methods if needed. Writing is integrated into the learning process to deepen understanding of mathematical concepts. For example, in Topic 6, Lesson 3, Deliver Instruction, Lesson Files, Lesson 3, Student Activity Sheet students will discuss the displayed questions, share their conjectures with justifications based on the data in the table, and engage in writing about their mathematical reasoning. This promotes making sense of mathematics through doing, writing about, and discussing math with peers and teachers.
- The materials are designed to require students to make sense of mathematics through doing, writing about, and discussing math with peers and teachers. For example, in Topic 3, Lesson 6 students define a function and write about it given several prompts, share their work with a partner, and develop a final written product over a couple of class periods with peer and teacher support.

- The materials are designed to require students to make sense of mathematics through doing, writing about, and discussing math with peers and teachers. Each lesson includes an interactive digital platform with a printable student activity page, ensuring that students engage in doing, writing, and discussing math with peers and teachers. The Deliver Instruction page provides guidance for the teacher to help facilitate classroom conversations through whole and small group activities. The digital platform and student handouts require students to complete mathematical tasks, providing opportunities for writing their thoughts. For example, the Deliver Instruction page for Topic 3, Lesson 3 offers guidance on how students should progress through the lesson activities, with specific mentions of discussing their thoughts with a partner or the whole group, and emphasizes the importance of students recording their own answers through the questions.

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 provide guidance to support teachers in facilitating student interactions where they share and reflect on their problem-solving approaches, including explanations, arguments, and justifications. For example, the Deliver Instruction section for each topic supports the teacher with steps for classroom instruction and suggested questions to encourage or help students find a path to understanding. There is also help with language support and areas to watch that tend to have misunderstandings.
- The materials include teacher guidance for helping students share and reflect on their problem-solving approaches including explanations, arguments, and justifications. For example, Topic 5, Lesson 2, Deliver Instruction prompts teachers to "Ask students to share their rules and the processes they used to determine the rules. Use the animation on page 5 as needed to reinforce how to use the graph or table to find the rule. Ask students to reflect on how these methods compare to the ones they used."
- The materials include the Deliver Instruction page for each lesson, which includes guidance and prompts for teachers to facilitate student interactions where students explain, justify, and reflect on their problem-solving approaches. For example, Topic 6, Lesson 5 provides guidance on facilitating classroom conversation by having students come to the class computer and share. The guidance specifically states, "Ask the student to 'think aloud.'" The guidance continues with prompting questions to help students reflect on their process, present their arguments, and explore alternative approaches.
- The materials support students to share and reflect on their problem-solving approaches, including explanations, arguments, and justifications. For example, the "Constructed Response" task for each topic requires students to demonstrate a problem-solving process. The tasks are open-ended and often ask for justification alongside the correct response. For example, Topic 10, Constructed Response 1 requires students to justify their approach to finding the volume of a cube with an unknown side length and determine what size shipping

container will be needed. Each part of the question requires students to "explain how they arrived at their answer."

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

- The materials provide guidance to assist teachers in offering explanatory feedback based on student responses and anticipated misconceptions. This includes suggestions on how to approach misunderstandings and questions designed to address expected roadblocks to understanding. Each lesson's Deliver Instruction section includes common student misunderstandings that can occur during the lesson. For example, in Topic 3, Lesson 2 the guidance includes numerous question prompts as students work through the online material, along with classroom strategies and differentiation techniques to provide feedback as needed. One specific suggestion related to misconceptions states, "Because the domain of this sequence includes some of the terms in the sequence, students may become confused. To combat this, you may need to precede each of the questions above by referring students to the puzzle they just completed, so that they will recall what each of the expressions in the questions above is equal to."
- The materials include the Deliver Instruction page for each lesson which offers prompts and guidance for anticipated misconceptions and to assist teachers in providing explanatory feedback based on student responses. For example, in Topic 12, Lesson 2 the guidance suggests, "Use student responses to the framing question to ensure they understand what is meant by a 'growth pattern.'" It also provides a classroom strategy, stating, "Some students may try to use '+20' as their first response for change in the fire ant population between weeks 0 and 1. Emphasize the idea of a 'pattern' of growth and being able to describe the change in the same way from week to week." Asking students to test the additional strategy between weeks 1 and 2 should be sufficient to make the point that a different way to describe the growth is needed.