IMRA Review Cycle 2024 Report

Publisher Name	Program Name
Cosenza & Associates, LLC	*Algebraic Reasoning*
Subject	**Course**
Mathematics	Algebraic Reasoning

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 **1**

Indicator	Count of Flags
Alignment with Public Education's Constitutional Goal, 2.1.1	**1**
Promoting Sexual Risk Avoidance, 6.2	**0**

Alleged Factual Errors **0**

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 **1**

Quality Review Summary

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

Strengths

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

tasks and activities to address student performance trends, and include tools for students to track their own progress and growth.

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

embedded supports for teachers to guide students toward more efficient approaches.

- 5.3 Balance of Conceptual Understanding and Procedural Fluency: Materials explicitly state how the conceptual and procedural emphasis of the TEKS are addressed, include questions and tasks that use concrete models, pictorial representations, and abstract representations, and provide supports for students in connecting and explaining these models to abstract concepts.
- 5.4 Development of Academic Mathematical Language: Materials provide opportunities for students to develop academic mathematical language using visuals, manipulatives, and language strategies, with embedded teacher guidance on scaffolding vocabulary, syntax, and discourse, and supporting mathematical conversations to refine and use math language.
- 5.5 Process Standards Connections: Materials integrate process standards appropriately, providing descriptions of how they are incorporated and connected throughout the course, within each unit, and in each lesson.
- 6.1 Student Self-Efficacy: Materials provide opportunities for students to think mathematically, persevere through problem-solving, and make sense of mathematics, while supporting them in understanding multiple ways to solve problems and requiring them to engage with math through doing, writing, and discussion.
- 6.2 Facilitating Productive Struggle: Materials support teachers in guiding students to share and reflect on their problem-solving approaches, offering prompts and guidance for providing explanatory feedback based on student responses and anticipated misconceptions.

Challenges

- No challenges for this material

Summary

Algebraic Reasoning by Cosenza & Associates, LLC is a Mathematics 9–12 program. It provides a detailed, year-long scope and sequence that allows educators to plan comprehensively. Daily instructional guidance maintains consistent sequences and routines, including teacher modeling, hands-on activities, partner work, and guided and independent practice.

Campus and district instructional leaders should consider the following:

- Each lesson starts with an exploration, where students engage in activities to demonstrate their initial understanding. The materials then provide explanations and independent practice, followed by a differentiated real-world performance task to support learners at all levels. The program also equips teachers with support to address common student misconceptions about mathematical concepts.

- The materials support students in understanding, explaining, and justifying multiple ways to solve problems and tasks.

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 that outlines the TEKS, ELPS, concepts, and knowledge taught in the course. The 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 materials include an explanation for the rationale of unit order as well as how concepts to be learned connect throughout the course. The materials include guidance, protocols, and/or templates for internalizing units and lessons.

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 provide a comprehensive "Scope and Sequence" document that aligns TEKS and ELPS with course units. This information can be found in the *Algebraic Reasoning (Teacher Course)* materials and the "Scope and Sequence" document.
- The *Algebraic Reasoning Year-at-a-Glanc*e outlines semester alignments. Located in the *Algebraic Reasoning Year-at-a-Glance* document.
- Online teacher resources provide a detailed guide, including a sequence of units with aligned TEKS and ELPS, ensuring coherent instruction of concepts and knowledge throughout 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, and 210).

- The materials include a detailed pacing guide that supports effective implementation for various instructional calendars, providing three detailed calendars for 165, 180, and 210

instructional days, which outline the number of instructional days spent by unit, lesson, and topic. Moreover, the pacing guide aligns each instructional day with the TEKS and ELPS taught.

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

- The materials include a rationale for the sequence of concepts, explaining how new concepts build on previous ones throughout the course progression. The rationale for units, located online, details the progression by referencing prior knowledge and connecting units together.
- The materials include graphics and charts, along with an explanation of the rationale behind the unit order. Following the graphics and charts, there is a detailed explanation of how the concepts to be learned connect throughout the course. Additionally, the graphics and charts depict the process standards as the foundation of the course, along with how the sequences progress within the units. This information is in the *Teacher Course Scope & Sequence* document and the "Rationale for Unit Progression."
- The rationale for units is located online under *Algebraic Reasoning (Teacher Course)*, *Algebraic Reasoning* course-level documents, *Algebraic Reasoning Scope and Sequence*, titled "Progression of Units." This document explains the progression of the units, referencing prior knowledge and connecting the units.

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

- The materials include teacher protocols in the form of a checklist and self-reflection questions for both unit and lesson internalization. These protocols guide teachers to read and make notes for themselves, connect lessons to culminating tasks, and anticipate where students will need support.
- These protocols guide teachers to read and make notes for themselves, connect lessons to culminating tasks, and anticipate where students will need support.
- The materials provide teachers with guidance for the recommended use of resources such as textbooks, technology, enrichment/extension lessons, research-based instructional strategies, and scaffolds.
- The *Algebraic Reasoning Teacher's Guide* provides step-by-step instructions for both unit and lesson internalization. Additionally, the "Lesson Overview" pages and the "Engage," "Explore," "Explain," "Elaborate," and "Evaluate" pages within the teacher course further support this process.

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

- The materials in the *Algebraic Reasoning Implementation Guide* include resources and guidance to support teachers with implementing the materials as designed.

- The *Algebraic Reasoning Implementation Guide* "is written with administrators and instructional coaches in mind and can be used by teachers who are leading a professional learning community of colleagues in teaching Algebraic Reasoning."

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 families in both Spanish and English with suggestions on supporting the progress of their student.

Evidence includes, but is not limited to:

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

- The *Algebraic Reasoning Units 1–12 Teacher Materials* include comprehensive unit overviews that provide the foundational knowledge and context needed to teach the concepts in each unit effectively.
- Each unit overview details the TEKS and ELPS alignment, objectives, three calendar adjustments, resources, and time allotments for lesson planning.
- The materials overview is in Algebraic Reasoning (Teacher Course), under Unit 1: Function Patterns, Teacher Materials, Unit Overview, and includes a description of how the material ties in from Algebra 1 and how it will continue to build for Algebra 2. Additionally, in Topic 1: Linear Functions for 1.2 Writing Linear Functions, materials include Connections and Teaching Hints that states, "Here's a video showing connections to Grade 8 and Algebra 1 as well as other hints for teaching this topic with your kids from the author's perspective. In this video, you will learn more about vertical connections from middle school, Algebra 1, and Algebraic Reasoning connections between arithmetic sequences and linear functions connections between the constant first difference and slope calculator hint for using lists to determine first differences."
- The *Algebraic Reasoning Units 1–12 Teacher Materials* provide the academic vocabulary necessary to teach the concepts in each unit effectively.
- The material shows all the vocabulary for the unit, and at the beginning of each unit, the "Teacher Resource" area includes a detailed outline listing the vocabulary and provides an overview of materials needed for both the teacher and the student.
- The "Unit Lesson Guides" for teachers provide a list of vocabulary that requires explicit instruction.

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

- The *Algebraic Reasoning Units 1–12 Teacher Materials* include sample customizable letters in both English and Spanish that provide support for each unit. These letters emphasize real-world applications by asking the student each day to explain one thing learned in Algebraic Reasoning, encouraging the student to read the relevant textbook section, and discussing the student's Algebraic Reasoning assignments.
- The materials also include letters with specific strategies and prompts aligned to each unit that parents can use as a guide to support their student's progress. Each unit overview includes a letter to parents in both English and Spanish that describes the major concepts of the unit and supports parents in assisting their child's learning of these concepts.

Intentional Instructional Design

1.3	Lesson-Level Design	34/34
1.3a	Materials include comprehensive, structured, detailed lesson plans that include daily objectives, questions, tasks, materials, and instructional assessments required to meet the content and language standards of the lesson.	**30/30**
1.3b	Materials include a lesson overview outlining the suggested timing for each lesson component.	**1/1**
1.3c	Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson.	**2/2**
1.3d	Materials include guidance on the effective use of lesson materials for extended practice (e.g., homework, extension, enrichment).	**1/1**

The materials include comprehensive, structured, detailed lesson plans that include daily objectives, questions, tasks, materials, and instructional assessments required to meet the content and language standards of the lesson. Materials include a lesson overview outlining the suggested timing for each lesson component. Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson. Materials include guidance on the effective use of lesson materials for extended practice (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 *Algebraic Reasoning Teacher Resource* materials provide comprehensive lesson plans that include daily objectives, focus questions, tasks, teacher and student materials, and instructional assessments to meet each lesson's content and language standards. Each lesson features specific points for instructional evaluations, such as student performance tasks, mid-unit quizzes, and unit tests.
- The lesson plans are structured using the 5E model, enhancing rigor for all students and supporting emergent bilingual students. They specify detailed teacher actions and support differentiation and evaluation throughout the 5E phases using questioning and student tasks.
- Daily objectives are presented as learning outcomes at the beginning of each lesson overview, with a focus question introduced at the start of each section within the unit. The overviews also include a list of necessary supplies and materials.
- Detailed "5E Lesson Guides" are provided for each lesson to support teachers. "Assessment Keys" are located at the bottom of the unit overview landing page, with assessments featured at the end of the online book.

- The lesson plans are designed to achieve rigor by balancing conceptual understanding, procedural skill fluency, and application. Each 5E model includes questions that aid teachers in lesson planning and implementation.

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

- The materials provide pacing guides for all lesson components, suggesting timing intervals for each part of the 5E model.
- The pacing guide cycles through the 5E model, offering timing suggestions for engaging students, facilitating hands-on exploration, prompting explanations, supporting elaboration, and allowing time to evaluate understanding and learning progress.
- Each lesson overview includes a pacing guide recommending the duration for each phase of the 5E model, along with an overview of the lesson's objectives, estimated teaching and practice times, and a "Getting Started" guide that equips teachers with recommendations, materials, tips, and notes to prepare for lessons in each unit.

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

- The materials include bulleted lists of essential teacher resources like lesson plans, answer keys, and instructional guides for effective lesson delivery. Student materials listed consist of worksheets, textbooks, manipulatives, and other resources necessary for learning. For example, teacher materials feature the *Teacher Wraparound Edition* (TWE) of the Algebraic Reasoning textbook, while student materials include pencils, paper, graphing calculators, spreadsheets, and the *Student Edition* (SE) of the textbook.
- In the unit overview at the beginning, you can find clear delineations of the materials required for both teachers and students. Some lessons also specify manipulatives that teachers need to provide to facilitate instruction.

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

- The materials provide clear guidance on integrating extended practice with lesson materials; extension and enrichment opportunities are at the end of each unit.
- The "Elaborate" phase in the 5E model targets tiered practice, allowing teachers to extend activities based on students' progress. Each unit includes an extension section that aligns with these phases.
- At the end of each unit, there is a designated enrichment and extension section which presents bulleted lists for teachers and offers prompts or activities that can be implemented in the classroom. These extensions utilize real-world applications to extend learning beyond the classroom.

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 levels (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. Diagnostic, formative, and summative assessments are aligned to TEKS and the 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 a variety of instructional assessments at the unit level, such as formative and summative assessments through mid-unit quizzes and end-of-unit tests. For example, the "Mid-Unit 1 Quiz," "Form A," includes questions at varying levels of complexity, such as questions 4, 5, 9, and 10. Similarly, the "Mid-Unit 1 Quiz," "Form M," features questions 2, 3, 5, and 10, providing diverse tasks to assess student understanding and propel learning forward. The "Unit 4 Test," "Form M," also includes complex questions (e.g., 1, 5, 6, and 7), with sub-answers designed to guide teachers in providing partial credit based on student performance.
- At the unit level, formative and summative assessments appear once per unit, offering tasks and questions in formats like single-choice, multiple-choice, ordering, association, matching, fill-in-the-blanks (with drop-down), fill-in-the-blanks (drag-and-drop), descriptive, comprehension, audio recording, and drawing. These assessments can be administered on paper or digitally. The materials include formative assessment items like "You Try It!" activities and other guided practice opportunities, along with assessment tools such as "You Try It!" and "Practice/Homework" to measure understanding of mathematical concepts and skills.

- The assessments vary in format, including multiple-choice and short-constructed responses, with both digital and PDF versions of tests provided. For instance, the "Mid-Unit 1 Quiz," "Forms A and M," and the "Unit 4 Test," "Form M," are available in various formats, with answer keys included for each test, ensuring a consistent and accurate assessment of student progress.
- The assessments feature various tasks, such as mid-unit quizzes (coming soon), "Exit Tickets," and tests, with semester and end-of-course tests also planned for future inclusion.

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

- The materials include definitions and intended purposes for various types of instructional assessments. Specifically, within the *Algebraic Reasoning Teacher Course*, there is a PDF assessment guide listing diagnostic, unit-level formative, lesson-level formative, and unit-level summative assessments. This guide provides definitions for each type, outlines their purpose, offers guidance on administration, and includes examples and formats.
- The *Algebraic Reasoning Assessment Guide* features a table with clear and concise definitions and purposes for different types of instructional assessments.
- The materials define diagnostic assessments to establish baseline data on students' foundational knowledge or proficiency, and they define summative assessments to evaluate learning, skill acquisition, and achievement at the end of a unit, including answer keys.

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

- The materials include teacher guidance in the form of an assessment guide to ensure consistent and accurate administration of instructional assessments. The assessment answer keys offer guidance to teachers on supporting students during assessments.
- The *Algebraic Reasoning Assessment Guide* provides teachers with instructions on how often and in what forms assessments can be administered within a unit and lesson. Assessments can be conducted on paper or digitally.
- The materials also include pacing guides with various calendars to help teachers schedule assessments.
- Clear and consistent directions for summative assessments are provided in the "Elaborate" and "Evaluate" phases of each lesson. The materials define the frequency of the unit assessments by placing the unit test at the end of each unit.

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

- The materials include teacher guidance in the form of an assessment guide to ensure consistent and accurate administration of instructional assessments. The assessment guide

provides teachers with instructions on how often and in what forms assessments can be administered within a unit and lesson. Assessments can be conducted on paper or digitally.
- The materials also include pacing guides with various calendars to help teachers schedule assessments.
- The materials provide the TEKS correlation for each assessment number in the answer key, offering guidance to teachers on supporting students during assessments.
- Diagnostic, formative, and summative assessments are aligned to the course TEKS and objectives. The materials provide all formative mid-unit quizzes and summative chapter tests in both at-level ("Form A") and modified ("Form M") versions, aligned to the TEKS and course objectives.
- The *Algebraic Reasoning Teacher Resource* materials include answer keys that align formative and summative assessments to the TEKS. The assessments and corresponding answer keys are available digitally, ensuring that teachers can easily review the alignment to the TEKS.
- Formative assessments found in the "You Try It!" and "Practice/Homework" sections, as well as those in the "Evaluate" portion of the lesson plan, are aligned with lesson objectives.
- Both formative and summative assessments are aligned to lesson and unit TEKS and objectives. Assessments are integrated at the unit and lesson levels, including varying levels of complexity.

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

- Instructional assessments in the materials include standards-aligned items at varying levels of complexity, featured in both paper-based and interactive formats. For example, the "Unit 1" and "Unit 2" tests include single-choice, multiple-choice, and descriptive items.
- The Algebraic Reasoning course-level documents include an assessment guide detailing item types available on the digital platform. Teachers can use item banks to create assessments with various item types, such as single-choice, multiple-choice, ordering, association, and others.
- Available item types online encompass single-choice, multiple-choice, ordering, association, matching, fill-in-the-blanks, fill-in-the-blanks with ordering, fill-in-the-blanks with drag-and-drop, descriptive, comprehension, audio recording, drawing, drag-and-drop image, and situational judgment.

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

Evidence includes, but is not limited to:

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

- The instructional assessments and scoring information offer clear guidance for interpreting student performance, including actions detailed in the *Algebraic Reasoning Assessment Guide* for multiple-choice and free-response items.
- They also guide how to respond to student performance on formative assessments, with the "Elaborate" section of lessons providing differentiated practice and/or homework assignments.
- The *Algebraic Reasoning Assessment Guide* recommends using assessments to differentiate student assignments in each lesson's "Elaborate" phase, with assessment keys providing answers or solutions for all units except "Unit 1."
- Teacher's directions for the "Elaborate" phase provide differentiated assignments based on student performance levels. Unit tests provide TEKS and Process TEKS along with answers yet lack guidance on grading or assessing students across units.

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

- The materials provide teacher guidance for the use of tasks and activities. Each lesson section includes questioning strategies, instructional hints, strategies for supporting emergent bilingual students, and additional examples tailored to address student performance trends identified in formative assessments.
- The teacher's directions for the "Elaborate" phase of each lesson offer differentiated assignments based on students' performance levels on the assessments provided.

- The *Teacher's Implementation Guide* outlines a protocol for teachers to collaborate in interpreting student assessment results, planning responses, and modifying future assignments and activities accordingly. The materials include instructional strategies to address trends identified from instructional assessment data, catering to students performing below, at, and above proficiency levels.
- Additionally, the materials provide instructional strategies and guidance to support students requiring additional assistance. These strategies include redirecting students to specific problems within the lesson and offering varying levels of support from struggling to proficient to advanced students.

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

- The materials provide two tools for students to track their progress and growth. They include a "Digital Student Progress Tracking Tool" for assessments assigned digitally by teachers and a "Printable Student Progress Tracking Tool" available throughout the course.
- The materials mention two tools for students to track their progress and growth. Reviewers were able to access the "Printable Student Progress Tracking Tool." Additionally, the materials include a student-friendly data sheet that enables students to record their assessment scores.
- The *Algebraic Reasoning Assessment Guide* includes a "Progress Tracking Tool" designed for students to monitor their progress toward mastery. It features sections for students to set goals and track their growth.

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 provide teacher support in the "Elaborate" Section with detailed guidance on differentiated instruction based on student performance from previous lesson portions. This differentiation targets all performance levels, including students who have not yet demonstrated proficiency in grade-level content and skills. For instance, in the *Algebraic Reasoning (Teacher Course)*, "Unit 1: Function Patterns," "Lesson 1: Arithmetic & Geometric Sequences," the "Elaborate" Section offers a guide for students categorized as not yet proficient, somewhat proficient, proficient, and highly proficient to customize problems to various skill levels.
- The "Explore" Section of each lesson includes detailed, differentiated activities to help students attain proficiency in grade-level content and skills. This section offers guidance for teachers on grouping strategies, questioning techniques, instructional hints, and required student materials and supplies.
- Clarifying and focusing questions are included in the "Engage," "Explain," and "Explore" phases to support scaffolded student learning. The "Elaborate" Section specifies differentiated practice based on mastery, and the "Evaluate" Section guides teachers to assess students with "Exit Tickets" and provide follow-up support through questioning, as needed.

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

- The student materials include embedded supports for unfamiliar vocabulary, bolded and featured in text boxes within the "Explore" and "Explain" Sections of each lesson. These supports help students comprehend academic language by providing necessary contextual information.
- The teacher materials offer guidance on supporting emergent bilingual students, suggesting the use of visual and contextual aids in the "Explain" Section to develop the vocabulary needed for understanding challenging academic language. Teachers are encouraged to pre-assess and informally pre-teach unfamiliar vocabulary in the "Explore" Sections before formal definitions and examples are given in the "Explain" Sections.
- Vocabulary lists aligned to the ELPS are provided with each unit overview, highlighting key terms used throughout the unit. Additionally, the materials include frequent structured opportunities for students to engage in partner and group discussions using academic language and vocabulary during the "Explore" Sections.

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 offer detailed guidance on differentiated instruction, specifically targeting students who have demonstrated proficiency in grade-level content and skills. For instance, in the *Algebraic Reasoning (Teacher Course)*, "Unit 1: Function Patterns," "Lesson 1: Arithmetic & Geometric Sequences," the "Elaborate" Section provides strategies for customizing assignments based on varying proficiency levels, proficient, and highly proficient.
- Enrichment activities are provided at the end of each unit to challenge students who have shown proficiency in grade-level content and skills. Examples include project-based learning, open-ended questions, and independent investigations, which are designed to deepen students' understanding and extend their learning.
- Extension activities are included to further engage students who have demonstrated proficiency. For example, in "Unit 1: Function Patterns," students can create board games to explore finite differences and common ratios, working in pairs or groups as guided by the teacher. These activities are aimed at expanding students' knowledge and skills.

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 provide prompts, question stems, and instructional videos to guide teachers in effectively modeling concepts using the 5E model ("Engage," "Explore," "Explain," "Elaborate," and "Evaluate"). For example, the materials include detailed routines for demonstrating algebraic functions with "Algebra Tiles," allowing students to visualize and understand mathematical concepts through structured modeling.
- Teacher guidance includes directions for clearly explaining concepts by using manipulatives and step-by-step procedures. In the *Algebraic Reasoning* course, teachers are advised to use "Algebra Tiles" for hands-on demonstrations and provide explicit explanations of how to solve quadratic equations, with instructional hints in the book's sidebar.
- Materials support effective communication by offering a "Questioning Strategy" in the *Algebraic Reasoning (Teacher Course)* sidebar. This strategy helps teachers guide class discussions and facilitate student understanding, promoting clear communication of concepts. Additionally, the questioning strategy encourages teachers to use probing questions to check for understanding and guide students through complex problem-solving processes.

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

- The materials offer detailed teacher guidance for effective lesson delivery using the 5E instructional model, including explicit instructions for each phase ("Engage," "Explore," "Explain"). This includes support for student reasoning, questioning techniques, instructional hints, and strategies for emergent bilingual students.
- Every lesson follows the 5E instructional model with embedded guidance for each phase, incorporating various instructional options such as student-centered learning and explicit instruction. This structure includes strategies like pairing students to enhance participation and discovery.
- The materials provide a comprehensive "Lesson Overview" for each lesson, helping teachers understand the sequence of learning within the 5E instructional model. Additionally, they offer recommendations for integrating technology and vocabulary strategies to support problem-solving, reasoning, and sense-making for all students.

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 support multiple types of practice, including guided, independent, and collaborative activities. Each lesson features practice opportunities in the "Engage" and "Explore" Sections with independent practice in the "You Try It!" Section. Additionally, in the "Evaluate" Section, collaborative practice methods include paired problem-solving and think-pair-share.
- The 5E instructional model uses diverse collaboration methods, including partner work, small groups, and whole-class activities, to support independent and group learning. For example, in the "Explore" Section within "Unit 1: Function Patterns," "Lesson 1: Arithmetic & Geometric Sequences," students are randomly grouped into threes and provided with 50 toothpicks and 65 two-color counters for exploration of the *Algebraic Reasoning Student Edition 2024*. Additionally, students utilize Venn diagrams to compare sequences while the teacher assists emergent bilingual students with targeted questioning and group discussions.
- The *Algebraic Reasoning (Teacher Course)* includes clear headings and guidance for implementing various practice approaches that align with learning objectives, including whole group, small group, and individual. In the "Explore" Section of "Unit 1: Arithmetic & Geometric," "Lesson 2: Linear Function Patterns," the teacher randomly groups students into threes and provides both "STAAR Algebra 1 Reference Materials" and graphing technology. Then, half of the groups are assigned problems 1–6 while the other half are assigned problems 7–12. Both groups complete additional practice. Additionally, teachers will use scatter plots for data modeling, support emergent bilingual students with vocabulary reinforcement, and guide group discussions with targeted questions to compare scenarios and identify functions.

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 include explicit guidance for providing linguistic accommodations at various levels of language proficiency, as outlined in the English Language Proficiency Standards (ELPS). For example, the new *Algebraic Reasoning Teacher's Guide* provides strategies for engaging students using increasingly academic language and differentiates support based on language proficiency levels. Additionally, the highlighted sentences in the "Unit 1, Lesson 5" and "Unit 10, Lesson 1" "Explore" Sections offer targeted guidance for various proficiency levels, enhancing support for emergent bilingual students.
- The materials include differentiated guidance for various levels of language proficiency, as detailed in the updated *Algebraic Reasoning Teacher's Guide* and the highlighted content in the "Explore" Sections. The guidance helps teachers provide appropriate linguistic accommodations and support based on students' language proficiency levels, addressing the needs outlined in the ELPS.

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

- The *Algebraic Reasoning Teacher's Guide* PDF at the beginning of the materials explicitly references ELPS and offers guidance and implementation support for teachers working with emergent bilingual students, detailing how lessons address their needs during the "Explore" phase. For specific details, refer to *Algebraic Reasoning (Teacher Course)*, Algebraic Reasoning course-level documents, *Algebraic Reasoning Teacher's Guide*.
- The embedded guidance is clearly identified in the sidebar of each lesson with the headings "Supporting English Language Learners" and "ELL Strategies." The guidance specifically references student-student discourse and writing with newly acquired vocabulary.

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 updated materials now include embedded guidance for making cross-linguistic connections, as evidenced by the Spanish-English cognates tables and the new teacher guidance in the "Explore" Sections of "Unit 1" and "Unit 10." This guidance supports emergent bilingual students in connecting their native language with academic content through oral and written discourse, effectively addressing the support needed for cross-linguistic connections.
- Each lesson provides detailed instructions for teachers to help emergent bilingual students with background knowledge and vocabulary, improving their comprehension. For example, in *Algebraic Reasoning (Teacher Course)*, "Unit 1: Function Patterns," "Lesson 1: Arithmetic & Geometric Sequences," "Section 1.1 advises placing emergent bilingual students in small groups with their peers. This is essential for enhancing their English language skills through sharing ideas and opinions while learning math.
- The materials offer guidance for developing vocabulary and comprehension, but do not address cross-linguistic support or strategies for making connections between languages through oral and written discourse.

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 offer support for teachers to assist emergent bilingual students through oral and written discourse, focusing on enhancing academic vocabulary, comprehension, and background knowledge. This support is detailed in the lesson sidebars under "Supporting English Language Learners" and "ELL Strategies." For instance, in *Algebraic Reasoning (Teacher Course)*, "Unit 3: Linear Function Operations," "Lesson 1: Adding and Subtracting Linear Functions," "Section 5.1" emphasizes the importance of using academic vocabulary in both written and spoken forms during classroom discussions and reflection activities.

emergent bilingual students need to encounter and practice these terms in various contexts to internalize them effectively.

- The materials provide specific guidance for varying levels of language proficiency, as reflected in the new *Algebraic Reasoning Teacher's Guide* and updated content in the "Explore" Sections. The guidance includes specific strategies and differentiates support for emergent bilingual students, addressing their diverse language needs effectively.

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 throughout a lesson and/or unit (including instructional assessments) require students to demonstrate the 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.

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 provide assessments throughout each unit aligned to the TEKS, emphasizing depth of understanding beyond memorization. They require students to analyze information, solve problems, synthesize ideas, and evaluate concepts.
- Open-ended questions prompt students to explain their reasoning and justify answers, such as calculating the area after multiple paper cuts and interpreting values in an exponential function using diagrams. For example, "A sheet of paper has an area of 100 square inches. When the paper is cut in half, the area of one piece is 50 square inches. When that piece is cut in half, the area of one piece is 25 square inches. What would be the area of one piece after 5 cuts? Draw a diagram of the paper and how it is cut in half. Use the diagram to interpret the values of a and b in your exponential function. Communicate your mathematical reasoning and its implications using the diagram."
- The lessons consistently align with the depth and specificity of the TEKS, integrating real-world applications and problem-solving tasks throughout each phase ("Engage," "Explore," "Explain," "Elaborate," "Evaluate"). In "Lessons 2–4," the "Engage" Section provides a real-world application problem aligned to TEKS 1.A and the linear functions component of TEKS 6.B. The "Explore," "Explain," "Elaborate," and "Evaluate" phases of the same lesson continue this alignment.

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

- The lesson's questions and tasks progress from foundational understanding of targeted TEKS to assessing procedural fluency and finally, prompting explanations of procedural "whys."

- Concepts such as finite differences are introduced progressively, starting from concrete representations and real-world applications, moving to tables and graphs, and culminating in generalizations outlined in the TEKS.
- Complexity within topics advances within the *Algebraic Reasoning (Teacher Course)*, beginning with visualizations and progressing through characteristics verification algebraically and with function composition, enhancing grade-level proficiency.

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 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 *Algebraic Reasoning (Teacher Course)* features a logically sequenced scope and sequence, illustrated with a graphic that outlines unit progression and rationale throughout the course.
- The *Algebraic Reasoning Implementation Guide* emphasizes coherence across grade bands, particularly between Algebra 1 and Algebra 2, positioning Algebraic Reasoning as a bridge course. It aligns course content with Algebraic Reasoning TEKS, focusing on function types and skills essential for Algebra 1 and Algebra 2 readiness.
- Algebraic Reasoning employs a tabular and graphical approach to functions, offering accessible methods for struggling students and ensuring a logical progression from linear and quadratic functions to matrices, increasing rigor progressively.

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

- The instructional materials, such as the TEKS-aligned curriculum, demonstrate coherence across units by explicitly identifying big ideas that connect multiple units throughout the course. This is evident in the rationale for unit progression, which strategically sequences units based on years of action research and logical progression.
- Within each unit, students compare and contrast patterns or relationships encountered earlier in the course, fostering deeper understanding and application of concepts. For example, in Unit 1, Function Patterns is aligned with AR.2A Patterns and Structure. The student applies mathematical processes to connect finite differences or common ratios to attributes of functions. In Lesson 1, students identify a linear function or an exponential function. In Lesson 2, students determine patterns that identify a linear function from its related finite differences. In Lesson 3, students will analyze mathematical relationships between tabular and symbolic representations of exponential functions and make connections between and communicate mathematical ideas, including making connections to geometric sequences from the previous lesson, analyzing tables to determine exponential functions, and communicating how they determined an exponential function from a table. Students will also apply these skills to real-world situations in everyday life, society, and the workplace. Students can analyze, connect, and communicate mathematical ideas in the following ways
- The materials provide a logical and clear rationale for learning progression from one unit to the next, ensuring a structured development of mathematical concepts. This structured progression is evident in the use of common finite differences introduced early in the course, then referenced and built upon in subsequent units.

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 demonstrate coherence across units by connecting the content and language learned in previous courses. The materials provide a "Unit Overview" that includes activities teachers can use with students to connect to content and knowledge learned in previous classes, specifically Algebra 1.
- The materials demonstrate coherence across units by connecting the content and language learned in future courses. For example, the "Unit 1 Overview" explicitly addresses that in Algebra 2, students will build upon their understanding of these same function types to master algebraic manipulation of equations and inequalities related to systems of linear and nonlinear functions, quadratic functions with real or complex zeros, exponential functions, and cubic functions.
- Each function presented in the course is treated vertically in alignment with the corresponding vocabulary, which includes the same functions as presented in Algebra 1 and Algebra 2. Additionally, the "Explain" and "Elaborate" phases vertically connect academic vocabulary to previous learning.

- While domain and range are presented with set notation and inequalities in Algebra 1, the Algebraic Reasoning materials include interval and set-builder notation, which will also be offered in Algebra 2.

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 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 throughout each chapter. In the *Algebraic Reasoning (Teacher Course)*, an overview of process standards, provides guidance for teachers on addressing connections that students can make to Algebra 1 about linear functions and the use of grade-level vocabulary to communicate students' reasoning about linear functions. Students can talk with a peer or teacher, and then write their mathematical thinking clearly as they determine linear functions and their key attributes.
- There is an internal, logical progression from one topic to the next that builds upon previous learning. Characteristics of 1st-degree polynomial functions are examined, then generalized, and finally applied when introducing 2nd-degree polynomial functions. This process is repeated for the 3rd degree and contrasted when the function is not polynomial. A similar progression follows with radical functions, first with square roots, then cube roots, and so forth.

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 in the "Unit 1 Overview" provide spaced retrieval opportunities for students to revisit previously learned concepts and skills throughout lessons and units. For example, the "Unit 1" course materials include activities that engage students' background knowledge of linear, quadratic, cubic, exponential functions, and making connections among mixed function types. The materials also provide "Exit Tickets" at the end of lessons in the "Evaluate" Section that require students to recall essential information from earlier lessons or units.
- The materials spiral learned concepts and skills progressively to be more complex throughout the units. For example, in "Unit 1, Lesson 1," teachers facilitate student group exploration and reflection on patterns for sequences and the identification of linear and exponential relationships, which students will continue using throughout the unit. Content taught and practiced in one lesson is reiterated with additional practice opportunities both throughout and at the end of successive lessons; this approach applies to both conceptual and procedural content which is practiced across units.
- The materials located in the *Teacher Edition (TE)* provide numerous modeling examples, tasks, and discussion prompts that activate students' prior knowledge of concepts to build new mathematical understanding across all lessons and units. Additionally, the "Homework/Practice" sections provide opportunities for quick, frequent retrieval practice of previously learned skills and concepts.

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

- The materials include interleaved practice opportunities that require students to select and use diverse strategies, promoting the use of the most efficient strategy rather than relying on a single strategy. For example, the "Practice" Section in "Section 8.5" states, "Use finite

differences, average rates of change, or a regression algorithm with technology to write a function."

- The materials provide interleaving of previously learned concepts in different contexts. For example, concepts from "Unit 2: Linear Functions" are revisited throughout the course which supports continuous reinforcement and application of learned concepts. Furthermore, the "Explain" Section of "Unit 2, Lesson 4," states, "Linear functions relate a set of input values (domain of the independent variable) to a set of output values (range of the dependent variable)," to connect previously learned concepts, including academic vocabulary, across lessons.
- The scope and sequence ensure that related skills and concepts are taught in proximity across units. For example, the "Rationale for Unit Progression" visually demonstrates unit connectedness, including "Unit 2: Linear Functions," "Unit 3: Linear Function Operations," "Unit 4: Quadratic Functions," "Unit 5: Exponential Functions," and "Unit 6: Cubic Functions."

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

Evidence includes, but is not limited to:

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

- The questions and tasks provided, including models with manipulatives, graphs, tables, and equations, require students to model, interpret, analyze, generalize, and apply mathematical concepts in a variety of contextual and non-contextual scenarios. Additionally, questions provided in the teacher course materials support students in analyzing, interpreting, and modeling mathematical concepts using the 5E model.
- The questions require students to interpret, analyze, and evaluate various models of mathematical concepts and situations using the "You Try It" guide, which offers opportunities for students to demonstrate their understanding. Similarly, tasks focus on interpreting, analyzing, and evaluating different representations of mathematical concepts and situations. *Algebraic Reasoning* uses "Practice/Homework" as a guide, which provides ample opportunities for students to showcase their comprehension. Additionally, the "Explore" Section delves deeper into tasks through evaluation.
- In "Unit 2, Section 2.1," the "You Try It" tasks 1–3 prompt students to interpret, analyze, and evaluate various representations, including linear equations, graphs, and tables. These exercises focus on transforming a parent linear function, analyzing a table to determine the domain, range, x-intercept, and y-intercept, and evaluating a graph to identify key characteristics of a linear function.

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

- The questions and tasks in the materials require students to create models to represent mathematical situations. In "Unit 3, Lesson 1," students use color tiles to represent a sequence and create a table representing the relationship between two variables. The materials also include questions and tasks requiring students to write functions and create tables from geometric representations.
- The course materials provide students with questions and tasks that require them to create models such as tiling (patterns made by covering a plane with shapes), graphs, and tables to represent mathematical situations. Students engage with mathematical concepts by graphing and using manipulatives to adjust and analyze the graphs, enhancing their interpretation and understanding of problem situations.
- The book provides tasks that prompt students to use various models and representations to interpret, analyze, and evaluate different concepts. For example, students use manipulatives such as cubes and create real-world scatter plots on the calculator.

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

- The materials offer questions and tasks that encourage students to move beyond memorization, make connections between concepts and real-world applications, and tackle challenging open-ended questions. For example, in "Unit 2, Lesson 5," students calculate and explain their answers using algebraic operations, apply concepts such as functions to make predictions, and create mathematical models for real-world situations involving geometric or statistical data.
- The *Algebraic Reasoning (Teacher Course)* includes questions and tasks that require students to apply and transfer their mathematical learning to new contexts. Reflection questions embedded in each unit prompt students to explain and generalize their learning, facilitating the application of mathematical knowledge to new problem situations and real-life connections.
- Questions and tasks prompt students to apply their conceptual understanding to new situations. For example, the "You Try It" activity in the "Unit 3, Lesson 3," "Explore" Section allows students to select models or representations to justify their reasoning in real-world scenarios, requiring them to apply concepts to find solutions independently.

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 do not 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 tasks that offer multiple exposures, repeated practice, differentiated levels of difficulty, and engaging activities to build student automaticity and fluency. For example, in the "Explore" Section of "Unit 3, Lesson 2," students engage in interactive activities using manipulatives to solve problems involving the multiplication of linear functions. Additionally, to further develop automaticity, the activity provides student reflection opportunities.
- Throughout the text, examples and corresponding "You Try It" Sections offer sufficient repetition to build automaticity with grade-level concepts. Additionally, open-ended tasks provide opportunities to develop workability by exploring multiple valid solutions and approaches. Each section includes practice problems designed to enhance fluency and automaticity with grade-level concepts.
- The book includes an *Algebra Companion* guide with daily exercises targeting specific skills or concepts to build automaticity and fluency.

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

- The materials implement a four-step plan in "Unit 3, Lesson 2," where students understand a problem, make a plan, execute the plan, and review their work. This approach helps students practice efficient, flexible, and accurate mathematical procedures.
- The materials include daily warm-up exercises that reinforce and apply previously learned procedures, further supporting students' ability to carry out efficient, flexible, and accurate math procedures during the "Engage" activities. For example, in "Unit 1, Lesson 1.1," students use toothpicks to create shapes and discover sequences.

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

- The materials provide opportunities for students to evaluate a problem-solving model that includes analyzing information, formulating a plan, determining and justifying a solution, and evaluating the problem-solving process and solution's reasonableness. In "Unit 3, Lesson 4," the overview of process standards offers guidance for teachers on various problem-solving techniques. Problems specifically ask students to solve using the four-step problem-solving process.
- "Clarification and Advancing" questions within the 5 phases of the 5E lesson cycle prompt students to evaluate approaches and solutions for efficiency and flexibility, asking questions like "Can you explain this another way?" and "How is this graph helpful or misleading?" "Learning Outcomes" in each lesson indicate that students are expected to evaluate and explain their problem-solving approaches.
- The book includes strategic questions using the 5E strategies for teachers, prompting students to consider alternative strategies, think critically about efficient approaches, find alternate solutions, and apply procedures universally. The 5E framework is outlined for every chapter and lesson. Activities such as reflections within lessons allow students to analyze procedures and solutions for completed problems and reflect on their findings. This helps students improve their skills in evaluating the problem-solving process.
- The materials present situations for students to compare and contrast two possible answers. Sometimes, both responses are correct, emphasizing accuracy and flexibility. Students determine the most efficient method by analyzing the situation in "Unit 3, Lesson 4."

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

- The materials provide strategies that develop within the materials and the trajectory of learning from less efficient to more efficient strategies using the 5E model. *Algebraic Reasoning (Teacher Course)* explains how this will work throughout the materials, but there is no discussion of how to move students to more efficient approaches.

- Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches. For example, in "Lesson 5.1 Adding and Subtracting Polynomial Functions," students are provided color tiles to determine term 4 and term 5 based on the models given in the problem. Then students construct a table with the term number and area of the rectangle and use it to find patterns to find the function rule. In this scenario, students can look for patterns like finite differences or successive ratios. Then, students are asked to create a combined sequence by placing the figures from each sequence next to each other, and then use a table to determine the areas of the combined figure using finite differences or successive ratios and then apply this reasoning to the functions to determine pattern and note that both methods resulted in the function rules being equivalent. Students then reflect on their practices of using addition and subtraction to calculate function values for the sum (combined) function and difference function in a table in comparison to using operations on the symbolic functions. Students are guided towards an increasingly efficient approach of applying operations on the symbolic function in the "You Try It" section.

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 include the use of concrete models and manipulatives, pictorial representations (figures/drawings), and abstract representations. Materials include supports for students in connecting, creating, defining, and explaining concrete and representational models to abstract (symbolic/numeric/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 explicitly outline how they address the conceptual and procedural emphases of the Texas Essential Knowledge and Skills (TEKS). They are designed to develop students' critical thinking, analytical skills, and problem-solving abilities in new contexts. Additionally, the materials focus on improving students' fluency and accuracy in applying the specific skills learned in the lessons.
- The *Algebraic Reasoning (Teacher Course)* includes a scope and sequence that summarizes the major concepts and knowledge addressed in the TEKS. Each lesson includes an "Overview of Process Standards" that analyzes specific content TEKS through the lens of the process standards, clarifying which aspects are conceptual, procedural, or application-based.
- The scope and sequence map out how each lesson, activity, or resource aligns with specific TEKS. Unit overviews include explicit learning objectives that highlight coverage of key conceptual and procedural concepts and skills, as well as unit structure and instructional approach rationales.

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

- The materials use concrete models, manipulatives, and pictorial representations to illustrate mathematical concepts. For example, in "Unit 1, Lesson 1," an activity uses two-color counters as concrete representations to build patterns and a graph as a pictorial representation to predict the number of snowflakes in each pattern term.

- The materials guide students in using manipulatives, tables, graphs, and equations to model and represent mathematical and real-world problems. Students are encouraged to connect manipulatives to tables, graphs, equations, and other representations when solving questions and tasks.
- Throughout the book, various lessons feature hands-on activities with models and manipulatives to demonstrate mathematical concepts. In the Algebraic Reasoning course-level documents, the *Algebraic Reasoning Implementation Guide* also includes pictorial representations and abstract representations, including symbolic notations, numeric expressions, and algorithms, to clarify these concepts.

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

- The materials in *Algebraic Reasoning Student Edition 2024* "Section 1.6" include student exploration of both concrete and representational models. Students then analyze, connect, and create models using the same approaches to support abstract concepts.
- The materials have students define and explain given representations of functions before creating representations for other functions. This approach uses concrete and representational models to support student understanding of abstract concepts.

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 in "Unit 1, Lesson 3" provide students with opportunities to develop academic language using visuals. Key academic vocabulary is highlighted in bold throughout the text, and each lesson includes examples and a "You Try It" guided practice where students apply the vocabulary as models.
- The materials incorporate manipulatives to support the development of academic language. Each lesson emphasizes mathematical vocabulary being introduced and/or practiced, often using manipulatives or hands-on activities to reinforce learning goals.
- Each lesson features key academic vocabulary and employs the 5E instructional model to link vocabulary with representations and mathematical relationships. Teachers use questioning techniques to enhance language development and comprehension. For instance, in "Unit 1: Function Patterns," "Lesson 2: Linear Function Patterns," "Section 1.3, Algebraic Reasoning," these strategies are applied throughout the lesson.

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

- The materials in "Unit 1, Lesson 3" offer guidance for teachers to scaffold students' development and use of academic language within the lesson context. This scaffolding includes explicit instruction on academic vocabulary and how to integrate it into student activities.
- The 5E instructional model supports teachers in guiding the development of academic vocabulary. This includes instructional videos and strategies for assisting emergent bilingual students with reading and writing math answers. The "Explore" Sections outline a logical learning progression that highlights how academic vocabulary is developed progressively.
- The *Algebraic Reasoning Student Edition 2024* provides opportunities for students to develop academic language through manipulatives, visuals, and peer collaboration. Additionally, embedded teacher guidance supports the facilitation of these activities by providing strategies for incorporating academic vocabulary in context, helping students understand and apply academic terms effectively through practical application and peer interaction.

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 in each "Explore" Section of every lesson include embedded teacher guidance with instructional hints and questioning techniques. This guidance supports the application of appropriate mathematical language, including vocabulary, syntax, and discourse. Teachers are provided with strategies to support mathematical conversations, offering students opportunities to hear, refine, and use math language with peers.
- Every lesson provides multiple videos demonstrating the use of mathematical language, allowing students to hear and model appropriate vocabulary and syntax. Additionally, the guided discovery embedded throughout the 5E model and the "Elaborate" Section of each lesson provide opportunities for students to practice precise syntax and engage in mathematical discourse. The writing component embedded in the "Elaborate" Section further supports the development of mathematical language.
- The *Algebraic Reasoning Student Edition 2024* includes discussion questions in every unit lesson's "Elaborate" Section that guide students in using mathematical language effectively. Embedded teacher guidance is provided to help prepare for and facilitate strong student discourse based on quality tasks and concepts, ensuring the appropriate use of academic vocabulary. This guidance supports the development of students' mathematical language toolkits over time.

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 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 lesson materials include an overview of how process standards are integrated into each lesson; for example, in Algebraic Reasoning course-level documents, "Unit 1 Lesson 1," "Unit 1, Lesson 2" and "Unit 1, Lesson 4."
- Every lesson identifies the process standards that will be used. Instructional hints provided within the teacher guidance for the 5E lesson model clarify connections to the identified process standard. For example, in the "Unit 3, Lesson 4" "Explain" Section, the process standard identified is 1B (problem-solving), and the instructional hint says, "Have students write the four steps to solve this problem."
- The materials include all process standards, which are included in all parts of the lesson materials.

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

- The materials include a course scope and sequence document featuring a chart that details where and how the process standards are addressed throughout the course. The materials include a rationale for unit progression that describes how the process standards are incorporated and connected throughout the course.
- Throughout the course, the materials include a *Pacing Guide* that lists the TEKS for each lesson, including the process standards. Additionally, the course scope and sequence document describe how each process standard is incorporated in each unit.

- The materials include an overview that outlines how the process standards are embedded throughout the course, found under Algebraic Reasoning course-level documents, Algebraic Reasoning scope and sequence. This outline shows the specific Texas Essential Knowledge and Skills (TEKS) that each unit addresses.

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

- The materials include a document that lists the process standards incorporated within each unit. It can be found in the Algebraic Reasoning course-level documents, Algebraic Reasoning "Unit 1" teacher materials, Algebraic Reasoning "Unit 2" teacher materials, and Algebraic Reasoning "Unit 3" teacher materials.
- Each unit provides a list of process standards that will be addressed. The "Unit Objectives" provided in each "Unit Document" describes how the process and content standards are aligned within each unit.
- The materials provide an overview for each unit explaining where each process standard is addressed. The materials explain how the process standards are embedded in the unit, including how the process standards connect to the content standards.

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

- The Algebraic Reasoning course-level documents for "Unit 1, Lesson 1," "Unit 1, Lesson 2," and "Unit 1, Lesson 4" include an overview of how process standards are incorporated into each.
- Each lesson overview provides a list of process standards incorporated in the lesson. The *Algebraic Reasoning (Teacher Course)* identifies the process standard employed in each lesson on the first page of the section.
- The *Algebraic Reasoning Implementation Guide* provides strategic questions for teachers to use during instruction, and the materials provide opportunities for students to engage collaboratively with both the content and process standards.

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 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 are designed to support students in thinking mathematically by following the 5E model. This approach allows teachers to structure lessons so that students can engage with, explore, explain, elaborate, and evaluate the concepts. By participating in each step, students become active in their learning process. The materials include practice problems, such as "You Try It!" embedded throughout all lessons to offer opportunities for students to think mathematically. Additionally, students are prompted to reflect through written or oral discourse in every lesson to make sense of the mathematics they encounter.
- The materials provide multiple opportunities for students to persevere through problem-solving by moving from concrete to abstract representations. Each lesson encourages students to think mathematically and apply their understanding to solve real-world problems. Students are guided to model mathematical situations and use correct mathematical notation and models, which helps them develop resilience and persistence in tackling challenging problems.
- The *Implementation Guide* identifies common errors and misconceptions students may have and offers solutions to address them. Throughout the units and lessons, routine practice opportunities are designed to help students make sense of mathematics. These practice routines, including the "You Try It!" problems, "Practice/Homework," and the "Explore" and "Elaborate" Sections, require students to engage deeply with the material. They are encouraged to demonstrate understanding by working through problems, persisting through challenges, and reflecting on their thinking to ensure they grasp and apply mathematical concepts effectively.

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

- The materials are structured to follow the 5E model, providing lessons that require students to understand that there can be multiple ways to solve problems and complete tasks. These lessons encourage students to engage with concepts, use verbal or written discourse to explain and justify their solutions, and demonstrate that there can be multiple methods for solving problems.
- The materials offer opportunities for students to explain multiple ways of solving problems and completing tasks. For example, in sections 5.6 and 5.7 of the text, students compare and contrast different methods of decomposing polynomials using graphs, tables, and various algebraic techniques. In "Units 8.1 and 8.2," students solve and explain problems involving the inverses of functions through multiple approaches: tables, graphs, and algebraic verification by composition.
- The materials include lessons that help students justify multiple ways to solve problems and complete tasks. For instance, "Unit 12" features tasks where students solve a system of equations by hand and then use technology to verify their solutions. Lessons consistently incorporate tasks and questions that require students to represent, write, and discuss their thinking, providing justifications for their solutions in group settings or with the teacher's guidance.

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

- Included in the "Explore" Section of every lesson, the materials support students in making sense of mathematics through doing. This section outlines activities and tasks that facilitate group exploration and reflection. These activities, designed for student engagement, are accompanied by teacher guidance that supports student reasoning and productive struggle. Additionally, various question types are provided which helps students navigate their learning by understanding the mathematical concepts.
- The materials provide opportunities for students to make sense of mathematics through writing. Lessons are structured to delve deeper into the concepts, requiring students to reflect and write about their learning. This reflection helps students demonstrate their understanding and solidify their comprehension.
- The Algebraic Reasoning textbook offers opportunities for students to make sense of mathematics through discussions and includes tasks aligned with the 5E model that engage students in hands-on activities. Each lesson starts with an engaging "gotcha" activity, often incorporating manipulatives that encourage discussion and active engagement. This collaborative discourse encourages students to articulate their understanding and deepen their grasp of mathematical concepts.

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 teacher guidance embedded within the "Engage," "Explore," and "Elaborate" Sections of every lesson, supporting students in sharing and reflecting on their problem-solving approaches. For example, "Unit 4, Lesson 7" features a "Gallery Walk" where students are encouraged to ask peer-to-peer questions about their work and insights. This approach fosters student explanations of their problem-solving processes.
- The materials support teachers in guiding students to share and reflect on their problem-solving approaches, particularly emphasizing arguments in the "Elaborate" Section of each lesson. These tasks include prompts for students to discuss and articulate their arguments. For instance, the "Elaborate" Section in "Unit 3, Lesson 5" provides structured opportunities for students to engage in discussions focused on comparing and contrasting different problem-solving strategies.
- The materials include well-constructed questions and prompts in the "Explain" Section of the online resource to support students in sharing and reflecting on their problem-solving approaches, specifically targeting justifications. For example, the materials suggest teachers use clarifying, focusing, advanced, and assessing questions to help students justify their reasoning and demonstrate productive struggle, ensuring they understand the rationale behind their solutions.

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

- The materials include a *Teacher Wraparound Edition* with embedded support for teachers to assist students through questioning strategies. Sidebars provide prompts to help teachers offer explanatory feedback based on student responses in the "You Try It!" sections to both address various answers and provide targeted feedback to enhance understanding.

- The materials include detailed guidance in the *Teacher Wraparound Edition* for providing explanatory feedback based on student responses. For instance, in section 6.1 on matrices, this guidance assists teachers in addressing and clarifying student responses, ensuring effective feedback on their understanding of matrix concepts, including handling specific errors, such as confusing columns and rows of a matrix.
- The materials provide prompts in the margins to help teachers address anticipated misconceptions. For example, the "Reflect" Section prompts guide teachers to accurately interpret student work, address common misunderstandings, and offer corrective feedback.