

McGraw Hill LLC

Supplemental English Mathematics, Algebra

II ALEKS Algebra 2

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Supplemental	9780076867899	Digital	Adaptive

Rating Overview

TEKS SCORE	TEKS BREAKOUTS ATTEMPTED	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	53	0	Flags Not in Report	Not Applicable	0

Quality Rubric Section

RUBRIC SECTION	RAW SCORE	PERCENTAGE
1. Intentional Instructional Design	17 out of 21	81%
2. Progress Monitoring	19 out of 23	83%
3. Supports for All Learners	26 out of 37	70%
4. Depth and Coherence of Key Concepts	12 out of 16	75%
5. Balance of Conceptual and Procedural Understanding	25 out of 38	66%
6. Productive Struggle	16 out of 21	76%

Breakdown by Suitability Noncompliance and Excellence Categories

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

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

IMRA Quality Report

1. Intentional Instructional Design

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

1.1 Course-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.1a	The materials do not include an alignment guide outlining the ELPS.	4/5
1.1b	All criteria for guidance met.	3/3
1.1c	All criteria for guidance met.	2/2
1.1d	All criteria for guidance met.	2/2
1.1e	The materials do not include guidance for instructional leaders to support educators with implementing the materials as designed.	1/2
—	TOTAL	12/14

1.1a – Materials include an alignment guide outlining the TEKS, ELPS, and concepts covered, with a rationale for learning paths across grade levels (vertical alignment) and within the same grade level (horizontal alignment) as designed in the materials.

The *ALEKS Algebra 2* materials list the Texas Essential Knowledge and Skills (TEKS) in the "Standards" folder. This folder, which allows educators to view how the content aligns with state standards, is located in the *Content Editor* under "Class Customization."

The concepts listed under *Content Editor* are organized by topic and represent the mathematical ideas students are expected to engage with during instruction.

The *ALEKS Reference Guide* includes a section titled "Personalized Modules," which provides rationale for the vertical learning paths. The personalized modules are "front-loaded with pre-requisite skills to help students revisit previous skills for success in the course." The "ALEKS Student Experience" section explains that students are assigned lessons that address prerequisite skills based on diagnostic tests called Knowledge Checks. The "Sequence Check" section discusses the algorithm *ALEKS Algebra 2* uses to "structure different topics in the course based on historical student learning data."

The "Standards Correlation" lists the TEKS for Algebra II that are aligned with the *ALEKS Algebra 2* course topics, and the correlation guide lists the concepts that are covered within each TEKS. For example, TEKS 2.A includes a bulleted list of standards that are met within *ALEKS Algebra 2*, including "Graphing an absolute value equation in the plane: Advanced" and "Finding x- and y-intercepts given a polynomial function."

The materials do not include English Language Proficiency Standards (ELPS).

1.1b – Materials include an implementation guide with usage recommendations and strategies for effective educator use, such as just-in-time supports, advanced learning, or as a course.

The *Teacher Resources* recommends 45 to 60 minutes of use per week, covering five to nine topics per hour, with a focus on achieving mastery.

The "Recommendations and Implementation" video explains how educators can personalize learning for each student, taking into account student progress and fine-tuning their skills by assigning Knowledge Spaces that adapt to the student's needs.

The materials support the use of intervention and enrichment, allowing educators to tailor the resource to two instructional contexts driven by student data and targeted skill development.

1.1c – Materials include a TEKS correlation guide with recommended skill entry points based on diagnostic assessment results.

The materials include a TEKS correlation guide that is accessible through the *Content Editor* under "Class Administration, Class Summary, Content Editor (under Class Customization), Standards." This guide lists the TEKS associated with the course and shows how each topic aligns with the state standards.

The video provided on the Digital Technical Support site, titled "What is a Knowledge Check?," explains how students take an initial assessment (Knowledge Check), which consists of approximately 20–25 adaptive questions, upon first logging into *ALEKS Algebra 2*. The system then uses the results to determine each student's entry point into the learning path. This video also describes ongoing progress checks, which are used to track student growth, and recommends skill entry points based on diagnostic data.

The various *ALEKS Algebra 2* reports that can be generated through the resource provide a rationale for learning based on recent performance, highlighting both mastered and missed skills.

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

The materials provide a set of guidelines, along with corresponding guidance, for unit and lesson internalization within the "Topic Internalization Protocol." This protocol guides teachers in understanding what their students will be working on, the mathematical content of the lessons, and how to plan for a rigorous mathematics experience for all students.

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

The document titled "What to Look for in an ALEKS Classroom" outlines expectations for classroom setup and usage across three key implementation phases: Weeks 1–4, Weeks 5–10, and after Week 10 of using *ALEKS Algebra 2*. This document outlines the actions of teachers and students for each phase, providing guidance on grouping strategies and instructional priorities. These supports help instructional leaders monitor implementation over time and ensure fidelity across classrooms.

The materials provide educators with the flexibility to customize learning content that aligns with state standards or specific curriculum requirements. Additionally, the platform allows educators to upload external resources, including videos and handouts. Organizational features are also available to help with structure and delivery.

While plenty of resources are provided to instructional leaders, the guidance is lacking.

1.2 Lesson-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.2a	This guidance is not applicable to the program.	N/A
1.2b	The materials do not include detailed lesson overviews with learning objectives or assessment resources aligned with the ELPS.	3/5
1.2c	All criteria for guidance met.	2/2
—	TOTAL	5/7

1.2a – If designed to be static, materials include detailed lesson plans with learning objectives, teacher and student materials, lesson components with suggested timeframes, and assessment resources aligned with the TEKS and ELPS.

This guidance is not applicable because the program is not designed to be static.

1.2b – If designed to be adaptive, materials include detailed lesson overviews with learning objectives, lesson components with suggested timeframes, and assessment resources aligned with the TEKS and ELPS.

The materials include TEKS-aligned learning objectives, as shown in the video titled "Pie Report Recommendations." This video demonstrates how educators can identify TEKS-aligned topics that students are ready to learn in real time, based on their performance within the program.

The "What is a Knowledge Check?" video provides insight into the adaptive lesson structure. It outlines suggested timeframes for student engagement with learning topics and describes how students complete Progress Checks, which are used to assess readiness, performance, and growth. These progress checks are aligned to the TEKS, as demonstrated through the "Pie Report" interface.

The adaptive resource materials do not include detailed lesson overviews with learning objectives or assessment resources aligned with the ELPS.

1.2c – Materials contain support for families in Spanish and English for each unit, with suggestions on supporting the progress of their student(s).

The *ALEKS Resources for TX* Padlet includes the "Encourage Your Child's Math Learning At Home" letter and the "Parents' Guide to Student Reports," available in both English and Spanish. These resources offer families strategies to reinforce new learning, monitor student progress, and seek support as needed. The "Encourage Your Child's Math Learning At Home" letter provides parents with their student's login, summarizes the terminology used within the *ALEKS Algebra 2* program, and outlines the recommended amount of time their student should spend using the *ALEKS* program each week. These resources are available in Spanish and English.

The "Parents' Guide to Student Reports" guides parents on how to track their child's progress and understand what their child has been working on within the *ALEKS* platform. The resource provides parents with a thorough explanation of the Pie Report, demonstrating that each Pie Slice corresponds to specific topics in their child's learning pathway. While the darker portion of each slice represents mastered topics, the lighter portion represents topics that are still being learned. The "ALEKS for Parents" video demonstrates how to access the student Pie Chart, understand what has been mastered and what remains to be learned, and monitor daily progress through the platform. The video also shows how students can access learning supports while working through the program. Additionally, the "Parents' Guide to Student Reports" explains how to interpret various reports, including the Learning Sequence Log, Time and Topic Report, and Progress History Report. These resources are available to educators under the "Training and Resources" section of the teacher dashboard.

2. Progress Monitoring

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

2.1 Instructional Assessments

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.1a	All criteria for guidance met.	2/2
2.1b	All criteria for guidance met.	2/2
2.1c	The materials do not include text-to-speech, content and language supports, or calculators that educators can enable or disable to support individual students.	1/4
2.1d	All criteria for guidance met.	4/4
2.1e	All criteria for guidance met.	4/4
—	TOTAL	13/16

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

The *Reference Guide* defines the various types of assessments available for progress monitoring and specifies their intended purposes. The Pie Progress, Time, and Topic Goals are explicitly described as tools to measure student participation and content mastery over a set period. Scheduled Knowledge Checks are defined as individualized, mastery-based assessments that automatically adjust each student's learning path to meet their specific needs.

Additional assignment types, including traditional homework, quizzes, tests, and video assignments, are also defined with distinct purposes, such as pre-lecture practice, test preparation, or exposure to new content. These descriptions help clarify how each tool is intended to be used instructionally.

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

The *ALEKS Algebra 2* materials support consistent and accurate administration of instructional assessments. In the *Teacher Resource* video titled "Overview of Initial Knowledge Check," *ALEKS Algebra 2* explains how each assessment is automatically generated based on the student's prior performance, ensuring that the results accurately reflect mastery.

As students progress through the curriculum, a system of Knowledge Checks is used to assess student progress and adjust the learning path accordingly, allowing for accurate evaluation of student needs and knowledge gaps.

2.1c – Digital assessments include printable versions and accommodations, including text-to-speech, content and language supports, and calculators, that educators can enable or disable to support individual students.

ALEKS Algebra 2 includes printable versions of digital assessments, which can be used for students who require paper-based formats.

Under the Class Options setting, teachers can enable or disable the use of a graphing calculator for the entire class. However, there is no option to adjust calculator access at the individual student level.

The materials do not include text-to-speech within any of the embedded components. Content and language supports, such as visuals or simplified language, are not provided as an option for teachers to enable or disable for individual students. One support feature is the option for students to switch between English and Spanish while working within the resource.

2.1d – Materials include diagnostic assessments with TEKS-aligned tasks or questions, including interactive item types with varying complexity levels.

The materials include a diagnostic assessment, the "Initial Knowledge Check," which is TEKS-aligned and designed to determine the appropriate placement for each student based on their readiness. The assessment includes tasks ranging in complexity, from basic procedural fluency to conceptual and application-based questions. Because the assessment is adaptive, students will be exposed to a range of topics and difficulty levels. For example, students will be asked to simplify fractions, calculate percentages, solve systems of equations, and solve word problems that require the application of concepts from real numbers, equations, and inequalities.

The diagnostic assessment incorporates multiple interactive item types, such as graphing tools, inline choice, and equation editors. This design ensures that students engage with a range of content and item formats that reflect the depth and rigor of the standards.

2.1e – Materials include a variety of formative assessments with TEKS-aligned tasks or questions, including interactive item types with varying complexity levels.

ALEKS Algebra 2 includes a variety of formative assessments that are aligned to the Algebra II TEKS and vary in item type and complexity. Teachers can create formative assessments through the Assignments feature, which includes Homework, Quizzes, and Tests.

The assessments assigned to the students contain TEKS-aligned tasks that range in complexity from procedural fluency to conceptual understanding and application. Interactive item types—such as equation input fields, graphing tools, and drag-and-drop formats—are used to engage students and assess understanding in varied ways. This variety allows for ongoing monitoring of student learning and informed instructional decisions.

2.2 Data Analysis and Progress Monitoring

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.2a	The materials do not include a rationale for each incorrect response.	2/3
2.2b	All criteria for guidance met.	1/1
2.2c	All criteria for guidance met.	2/2
2.2d	This guidance is not applicable to the program.	N/A
2.2e	All criteria for guidance met.	1/1
—	TOTAL	6/7

2.2a – Instructional assessments include scoring information and guidance for interpreting student performance, including rationale for each correct and incorrect response.

Teachers can open a student's learning sequence log and view correct and incorrect responses for attempted problems. Clicking on the green checkmark (correct) or the red "x" (incorrect) opens a window that displays the student's answer. An explanation page is available for viewing by students, teachers, and their families.

A rationale is only provided for the correct response, assuming the student got the question incorrect. There is no explanation of possible misconceptions that may have led the student to arrive at an incorrect answer.

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

ALEKS Algebra 2 includes a Custom Reports feature that provides teachers with advanced tools for identifying and responding to trends in student performance on assessments. Educators can generate class-level reports that combine data from multiple *ALEKS* reports and export them to Excel. These reports support instructional planning by allowing teachers to analyze performance patterns, group students based on needs, and target specific skills.

The "Progress Report" displays overall student progress made in Learning Mode, including content mastered based on the Knowledge Check, as well as the topics learned per hour. This report can be used to track progress and identify students who may require additional support or intervention.

2.2c – Materials include tools for teachers to track student progress and growth, and tools for students to track their own progress and growth.

ALEKS Algebra 2 provides teachers with the Pie Report as a comprehensive tool to track student progress and growth. This visual report displays mastery levels across content areas, organized by module or

topic, and helps educators quickly identify which concepts students have mastered, are ready to learn, or have attempted without success. Teachers can use this data to monitor trends over time, differentiate instruction, and group students based on readiness levels.

The *ALEKS Algebra 2* Pie Report also serves as a progress-tracking tool for students, giving them a clear, visual representation of their learning journey. Students can view their mastery status in each module, see how many topics they have completed, and identify which topics they are ready to learn next. This promotes self-monitoring, goal setting, and greater engagement with their own academic progress. The transparency and accessibility of this report fulfill the expectations for student-facing growth tracking.

2.2d – If designed to be static, materials provide prompts and guidance to support educators in conducting frequent checks for understanding at key points throughout each lesson or activity.

This guidance is not applicable because the program is not designed to be static.

2.2e – If designed to be adaptive, materials provide frequent checks for understanding at key points throughout each lesson or activity.

ALEKS Algebra 2 automatically administers Progress Knowledge Checks as students work through learning modules. These embedded assessments occur at regular intervals, typically after a student has learned a designated number of new topics.

ALEKS Algebra 2 allows teachers to schedule Knowledge Checks manually at any point during instruction. This flexibility enables teachers to administer targeted formative assessments in response to classroom needs, pacing changes, or instructional priorities.

3. Supports for All Learners

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

3.1 Differentiation and Scaffolds

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.1a	All criteria for guidance met.	1/1
3.1b	The materials do not include explicit educator guidance for language supports, such as pre-teaching supports for developing academic vocabulary and unfamiliar references in the text.	2/4
3.1c	The materials do not include explicit educator guidance for enrichment or extension activities for students who have demonstrated proficiency in grade-level content and skills.	1/2
3.1d	The materials do not include digital resources that offer accommodations, such as text-to-speech, content and language supports, and calculators that educators can enable or disable to support individual students.	0/3
3.1e	All criteria for guidance met.	2/2
—	TOTAL	6/12

3.1a – Materials include explicit educator guidance for lessons or activities scaffolded for students who have not yet reached proficiency in prerequisite or grade-level concepts and skills.

Within the *MH Link* resource, a section titled "Getting Started with ALEKS" contains a document titled "Using the Course Placement Check." This document recommends to educators which ALEKS course students should start with for the best learning experience. This document provides teachers with the steps to enable the course placement check for new and existing classes.

3.1b – Materials include explicit educator guidance for language supports, including pre-teaching and embedded supports for developing academic vocabulary and unfamiliar references in text.

Within the *ALEKS Algebra 2* student view, a dictionary is provided as an embedded support for developing academic vocabulary and referencing unfamiliar terms within the text. For example, as students work on functions and lines within the *ALEKS Pie*, they can click on the word *function* to view its definition through a diagram (input/output machine), an example (table or graph), or a statement that explains the term.

The materials do not provide guidance for language supports aimed at pre-teaching academic vocabulary and unfamiliar references.

3.1c – Materials include explicit educator guidance for enrichment and extension activities for students who have demonstrated proficiency in grade-level and above grade-level content and skills.

Through individualized assessment and adaptive learning, students are provided with their own learning path as they demonstrate mastery of the current content, progressing toward enrichment tasks designed to extend their learning beyond grade level.

ALEKS Algebra 2 selects each question based on the student's responses to all previous questions, identifying what they have mastered and what they have not yet mastered. It then determines exactly which topics the student is ready to learn. *ALEKS Algebra 2* continuously monitors the student's successes and failures. Through this, the student is progressing only with topics that they are ready to learn. This, in turn, challenges the student when they have acquired enough foundational knowledge to advance toward higher-level problems.

The materials do not include explicit educator guidance for enrichment and extension activities for students who have demonstrated proficiency in grade-level content and skills.

3.1d – Digital materials include accommodations, including text-to-speech, content and language supports, and calculators that educators can enable or disable to support individual students.

ALEKS Algebra 2's digital materials do not include text-to-speech within any of the embedded components.

Calculators are an option for some skills practice, depending on whether the type of problem given allows for it. However, the educator cannot enable or disable the calculator feature to support individual students.

Content and language supports, such as visuals or simplified language, are not provided as an option for teachers to enable or disable for individual students. One support feature that is provided is the option for students to switch between English and Spanish while working within the resource.

3.1e – Materials include educator guidance on offering options and supports for students to demonstrate understanding of mathematical concepts in various ways, such as perform, express, and represent.

The materials provide educators with support to help students demonstrate understanding through the use of the Class Forum. The forum can be used to facilitate meaningful discussions with students in the class.

The question authoring tool that *ALEKS Algebra 2* provides (found under "My Questions") allows educators to offer students options for demonstrating their understanding of specific math concepts in various

ways by creating customizable questions, including multiple-choice, numeric entry, formula matching, and free-response.

3.2 Instructional Methods

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.2a	All criteria for guidance met.	5/5
3.2b	This guidance is not applicable to the program.	N/A
3.2c	All criteria for guidance met.	3/3
3.2d	The materials do not include educator guidance for effective implementation of enrichment or extension methods.	1/2
3.2e	The materials do not include prompts to support educators in providing timely feedback during lesson delivery.	1/2
—	TOTAL	10/12

3.2a – Materials include explicit (direct) prompts and guidance for educators to build knowledge by activating prior knowledge, anchoring big ideas, and highlighting and connecting key patterns, features, and relationships through multiple means of representation.

When using the visual aids in the *ALEKS Notebook* resource, teachers can find guidance and prompts on using visual aids and anchor charts to activate prior knowledge and reinforce key concepts. For example, the guide includes "a concept map showing steps for solving linear equations," which serves as a way for students to anchor big ideas in the moment by creating a concept map or to activate prior knowledge when reviewing the concept map.

Through the Conversation Starters, Write Out Solutions, and Visual Aids in the *ALEKS Notebook* resource, teachers can find guidance for highlighting and connecting key patterns, features, and relationships. For example, when writing out solutions, materials guide teachers to "encourage students to evaluate their process's efficiency," enabling them to look for patterns and determine the most efficient method. Using Conversation Starters, such as asking students to "make a prediction about what comes next based on what you have learned so far," enables teachers to highlight key features through the connections students make.

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

This guidance is not applicable because the program is not designed to be static.

3.2c – Materials include multi-tiered intervention methods for various types of practice and structures and educator guidance to support effective implementation.

As an adaptive resource, *ALEKS Algebra 2* incorporates multi-tiered intervention methods, including guided, interactive practice that provides instant feedback. Students progress independently through

various levels of practice based on their individual needs and mastery. *ALEKS Algebra 2* adjusts the level of difficulty based on student responses. Since real-time feedback is given, students will be rerouted to prerequisite skills when needed. The online materials enable educators to assign targeted practice sets or interventions by topic.

The adaptive materials include a multi-tiered intervention implementation document called "What to Look for in an ALEKS Classroom," which suggests classroom structures. Depending on the phase of the lesson, the document suggests whole-group instruction, breakout whole-group instruction, breakout centers, and independent work time.

ALEKS Algebra 2 includes educator guidance to support effective implementation through the real-time reports it provides. As students work through the lessons, teachers can provide suggestions based on areas of strength or weakness.

3.2d – Materials include enrichment and extension methods that support various forms of engagement, and guidance to support educators in effective implementation.

The materials include enrichment and extension methods that support various forms of engagement. Assigning content from the "Topics Not Aligned to these Standards" folder, such as "Introduction to Permutations and Combinations," will enable students to explore probability at a higher level.

ALEKS Algebra 2 does not include guidance to support educators in the effective implementation of enrichment and extension methods.

3.2e – Materials include prompts and guidance to support educators in providing timely feedback during lesson delivery.

The live dashboard that teachers use to monitor student work displays student responses, pace, and accuracy as they work through tasks. This component guides educators toward identifying students who are struggling or excelling, allowing them to step in and give immediate feedback to the student during lesson delivery.

The materials do not include prompts to support educators in providing timely feedback during lesson delivery.

3.3 Support for Emergent Bilingual Students

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

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.3a	This guidance is not applicable to the program.	N/A
3.3b	All criteria for guidance met.	4/4
3.3c	The materials do not include implementation guidance to support educators in effectively using the materials in state-approved bilingual/ESL programs.	0/1
3.3d	The materials do not include embedded guidance to support emergent bilingual students in building background knowledge through oral and written discourse.	6/8
3.3e	This guidance is not applicable to the program.	N/A
—	TOTAL	10/13

3.3a – If designed to be static, materials include educator guidance on providing and incorporating linguistic accommodations for all levels of language proficiency [as defined by the English Language Proficiency Standards (ELPS)], which are designed to engage students in using increasingly more academic language.

This guidance is not applicable because the program is not designed to be static.

3.3b – If designed to be adaptive, materials include embedded linguistic accommodations for all levels of language proficiency [as defined by the English Language Proficiency Standards (ELPS)], which are designed to engage students in using increasingly more academic language.

ALEKS Algebra 2 incorporates linguistic accommodations for language proficiency by offering students a built-in dictionary that can be viewed in either English or Spanish. Students can click on underlined words within problems or search for any unfamiliar words. In doing so, they are provided with a basic definition, a visual representation (diagram), or examples to support their understanding. This tool helps engage EB students at all levels in understanding the written English used in academic settings.

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

The materials do not include implementation guidance to support educators in effectively using the materials in state-approved bilingual/ESL programs.

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

ALEKS Algebra 2 embeds guidance to support emergent bilingual students in developing academic vocabulary, comprehension, and cross-linguistic connections through oral discourse in the *EB Guidebook*. For example, within the guide, teachers can find speaking strategies such as "Risk-Free Practice" and "Academic Conversation Protocols," which enable students to develop academic language through oral discourse by engaging in practice with their peers. Additionally, when students "rehearse with a buddy" and discover that "errors are learning opportunities," students increase comprehension and make cross-linguistic connections.

When using the "Vocabulary Pre-Teaching" reading strategy, located within the *EB Guide*, teachers support emergent bilingual students in developing academic vocabulary and enhancing comprehension through written discourse. Students create vocabulary cards and use total physical response activities to learn and remember vocabulary in context, enhancing their comprehension of content vocabulary. By providing writing frames and templates, teachers help students make cross-linguistic connections because students have templates for different writing styles, enabling them to compare their non-English language structures with those provided in an academic context.

The materials do not include embedded guidance to support emergent bilingual students in building background knowledge through oral and written discourse.

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

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

4. Depth and Coherence of Key Concepts

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

4.1 Depth of Key Concepts

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.1a	All criteria for guidance met.	2/2
4.1b	The materials do not include enrichment or extension materials that increase in rigor and complexity.	2/4
—	TOTAL	4/6

4.1a – Practice opportunities throughout learning pathways (including instructional assessments) require students to demonstrate depth of understanding aligned to the TEKS.

ALEKS Algebra 2 enables teachers to assign TEKS-aligned practice opportunities, including homework and topic goals, through the Assignments feature. These tasks require students to demonstrate depth of understanding by applying concepts in new contexts, interpreting mathematical relationships, and engaging with multiple representations, such as equations, tables, and graphs. For example, in Algebra 2, when students work with Parent Functions, they progress from identifying key attributes to analyzing the transformations of those same functions, and then to making predictions about how parameter changes affect the behavior of the functions' graphs.

These practice opportunities (including homework, quizzes, tests, time goals, topic goals, and pie progress goals) support reasoning and conceptual understanding, not just procedural fluency, reflecting the rigor and intent of the TEKS Algebra II standards.

4.1b – Questions and tasks, including enrichment and extension materials, increase in rigor and complexity, leading to grade-level and above grade-level proficiency in the mathematics TEKS.

The materials include questions and tasks that increase in rigor and complexity throughout the learning pathway, along with assigned assessments. While creating homework and quizzes through the Assignments feature, teachers can evaluate and select problems that vary in depth and align to different TEKS standards. For example, students progress from writing the inverse of a function to analyzing the relationship between a function and its inverse.

The materials do not include enrichment and extension questions and tasks that expand student learning beyond the curriculum.

4.2 Coherence of Key Concepts

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.2a	All criteria for guidance met.	1/1
4.2b	All criteria for guidance met.	1/1
4.2c	The materials do not demonstrate coherence across lessons or activities, and fail to connect students' prior knowledge of concepts and procedures to be learned in future grade levels.	2/4
—	TOTAL	4/6

4.2a – Materials demonstrate coherence across concepts horizontally within the grade level by connecting patterns, big ideas, and relationships.

ALEKS Algebra 2 demonstrates coherence across concepts horizontally within the grade level by use of the "Topic Carousel." This feature shows topics that are personally sequenced to reflect the students' current state of knowledge. Within each concept, topics are listed in an order that showcases what students are ready to learn and progresses toward topics that require prerequisite skills. The "Topic Carousel" enables students to view the goal topics they are working toward while mastering all the necessary skills to achieve them.

4.2b – Materials demonstrate coherence vertically across concepts and grade bands, including connections from grades 3–12, by connecting patterns, big ideas, and relationships.

ALEKS Algebra 2 provides a document titled "ALEKS Correlations to the TEKS for grades 6–Pre-Calculus," which allows teachers to locate where specific standards and concepts appear across multiple grade bands. This correlation document enables educators to identify alignment of content to the TEKS across courses and supports instructional planning with awareness of concept progression.

The materials enable teachers to assess the knowledge that students acquired in the previous grade. For example, in *ALEKS Algebra 1*, when students discover what it is that defines a function—verbally, tabularly, graphically, and symbolically—they go on to learning about new types of functions in *ALEKS Algebra 2*, where restrictions on the domain will have to be made due to knowing the definition of a function.

4.2c – Materials demonstrate coherence across lessons or activities by connecting students' prior knowledge of concepts and procedures to the mathematical concepts to be learned in the current grade level and future grade levels.

ALEKS Algebra 2 enables teachers to assign skills from prior grade-level prerequisite topics from the "Standards" tab, supporting students in bridging procedural skills to current Algebra 2 content. For example, in assigning the skill "Simplifying Expressions Using the Laws of Exponents" in combination with

"Factoring Quadratics," students refamiliarize themselves with the necessary skills to perform operations with rational expressions.

By enabling targeted reinforcement of these procedural skills, *ALEKS Algebra 2* supports coherence between students' prior procedural knowledge and the mathematical concepts they will encounter in the current grade level.

4.3 Coherence and Variety of Practice

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.3a	All criteria for guidance met.	2/2
4.3b	All criteria for guidance met.	2/2
—	TOTAL	4/4

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

ALEKS Algebra 2 provides spaced retrieval opportunities through its automatically administered Progress Knowledge Checks. These checks are triggered after a student has learned a set number of topics and serve to confirm retention of previously mastered concepts. Based on performance, *ALEKS Algebra 2* may reassign topics the student has not retained, creating ongoing opportunities to revisit and reinforce earlier learning. This cyclical retrieval supports long-term retention and reflects a strong implementation of spaced practice across the learning pathway.

The materials allow teachers to manually schedule Knowledge Checks at any point, offering additional spaced retrieval opportunities on a flexible timeline. This feature enables educators to intentionally reintroduce previously learned skills and concepts. This can also support unit transitions, address gaps in understanding, or reinforce foundational knowledge.

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

Teachers can create custom assignments that integrate a variety of skills across different strands of the curriculum. Within the Assignments feature, teachers can select a variety of topics and include them in a single practice session. This intentional mixing of skill types promotes interleaved practice by requiring students to distinguish between strategies and apply the appropriate method based on the problem's context. These opportunities help strengthen procedural fluency and align with expectations for interleaved skills practice.

ALEKS Algebra 2 supports interleaved conceptual practice by allowing teachers to assign tasks that target big ideas across multiple units. For example, a single assignment can combine multiple functions (cubic, cube root, absolute value, and rational), requiring students to apply conceptual understanding by modeling these functions and identifying their key attributes.

5. Balance of Conceptual and Procedural Understanding

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

5.1 Development of Conceptual Understanding

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.1a	All criteria for guidance met.	3/3
5.1b	The materials do not include questions and tasks that provide opportunities for students to create concrete models of mathematical situations.	1/2
5.1c	All criteria for guidance met.	1/1
—	TOTAL	5/6

5.1a – Questions and tasks provide opportunities for students to interpret, analyze, and evaluate mathematical concepts and complex, real-world situations.

Within *ALEKS Algebra 2*, students are provided with opportunities to interpret, analyze, and evaluate mathematical concepts and real-world situations. For example, when students are asked to "Solve a Word Problem Using a 3x3 System of Linear Equations" about three different types of coins that add up to a certain amount, while 2 of the coin totals are given in terms of a different coin, they begin by interpreting the given statements as expressions in terms of x , y , and z . Then, they analyze the situation and determine how to rewrite the equation, which is written in terms of all three variables, as an equation containing only one variable by using the substitution method. Lastly, to check their answers, students evaluate the original equations of the system once they have solved for all three variables.

5.1b – Questions and tasks provide opportunities for students to create concrete models and representations of mathematical situations.

Questions and tasks within *ALEKS Algebra 2* provide opportunities for students to create representations of mathematical situations. For example, when students are asked to "Graph a System of Two Linear Inequalities," they model the solutions to the system in graphical form, thereby strengthening their understanding of what the overlapping shaded regions represent.

ALEKS Algebra 2's questions and tasks do not provide opportunities for students to create concrete models of mathematical situations.

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

Students are given the opportunity to apply their conceptual understanding to new problem situations and contexts when working within *ALEKS Algebra 2*. For example, students are asked to find the composition of two functions and then use that knowledge to determine if two given functions are

inverses of each other. This task promotes deeper learning and long-term retention of how a function and its inverse work algebraically, and further transitions students into understanding that the domain and range are interchanged between the original function and its inverse.

5.2 Development of Fluency

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.2a	All criteria for guidance met.	2/2
5.2b	All criteria for guidance met.	3/3
5.2c	All criteria for guidance met.	3/3
5.2d	The materials do not contain guidance to support students in selecting increasingly efficient approaches to solve mathematics problems.	0/1
—	TOTAL	8/9

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

Within *ALEKS Algebra 2*, practicing prerequisite skills, such as operations with rational numbers, can help to build automaticity and fluency to complete grade-level tasks. If a student gets a problem wrong, they can refer to the explanation to work through the problem. Since these explanations are similar across problems and provide the same step-by-step feedback, students begin to gain confidence as they progress through the task, no longer needing to rely on the provided support.

5.2b – Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures throughout learning pathways.

In *ALEKS Algebra 2*, teachers can assign a skills-based warm-up at the beginning of each lesson within the resource, designed to revisit and reinforce prerequisite skills throughout the learning pathway. This approach helps to streamline the foundational skills necessary for the lesson, making the practice more efficient. As the students are "preloading" prior-taught skills, they are reinforcing their procedural accuracy of the newly learned concepts.

The online materials enable teachers to assign practice exercises that incorporate mixed skills, allowing students to solve problems using various methods (e.g., factoring, the quadratic formula, and completing the square) for solving quadratics. Through the use of the Class Forum, students can explain when and why they would select a specific method or approach to solve a given quadratic equation, allowing for flexibility.

The "Explanation Page," available to students as they work through the practice problems, prompts students to verify the accuracy of their mathematical procedures throughout the learning pathways.

5.2c – Materials provide opportunities for students to evaluate mathematical representations, models, strategies, and solutions for efficiency, flexibility, and accuracy throughout learning pathways.

The ALEKS Notebook Guide provides opportunities for students to evaluate mathematical representations, models, strategies, and solutions for efficiency, flexibility, and accuracy that could be used across lesson topics. The guide includes conversation starters such as "Why did you do that?," "Were there other methods you could have used?," "What would you do differently next time?," and "What's the most efficient way to solve this problem? Why?" that can be used throughout the different instructional strategies presented in the guide to encourage students to share, reflect, and evaluate their mathematical understanding.

5.2d – Materials contain guidance to support students in selecting the most efficient approaches when solving mathematics problems.

The materials do not contain guidance to support students in selecting the most efficient approaches when solving mathematics problems.

The materials do not include scaffolding strategies to guide students toward more efficient approaches.

5.3 Balance of Conceptual Understanding and Procedural Fluency

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.3a	The materials do not explicitly state how the conceptual and procedural emphases of the TEKS are addressed.	0/2
5.3b	Questions and tasks do not provide opportunities for students to use concrete models, as required by the TEKS.	2/3
5.3c	The materials do not include supports for students in defining and explaining representational models to abstract concepts, nor do they include supports for students in connecting, creating, defining, and explaining concrete models to abstract concepts, as required by the TEKS.	2/6
—	TOTAL	4/11

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

The materials do not explicitly state how the conceptual and procedural emphases of the TEKS are addressed.

5.3b – Questions and tasks provide opportunities for students to use concrete models, pictorial representations, and abstract models as required by the TEKS.

ALEKS Algebra 2 provides students with the opportunity to use pictorial representations through interactive graphing for the standard "Graphing an Inverse of a Function Given its Graph (2A.2.B)." Engaging with visual models helps students to construct their own understanding of the idea that the graph of a function and its inverse will always be reflective across the line $y = x$.

ALEKS Algebra 2 provides students with the opportunity to use abstract models in the standard "Formulating and Solving a Word Problem Using a System of Linear Inequalities (2A.3.E)." Students create algebraic equations that represent real-world situations. As they are asked to find a reasonable solution (a point within the shaded region), they are able to connect the idea that a two-variable system of inequalities has infinitely many solutions that will result in true statements when checked algebraically.

The materials do not include questions and tasks that provide opportunities for students to use concrete models as required by the TEKS.

5.3c – Materials include supports for students in connecting, creating, defining, and explaining concrete and representational models to abstract (symbolic/numeric/algorithmic) concepts, as required by the TEKS.

In *ALEKS Algebra 2*, students organize data into tables and extract information from them to identify patterns and write equations that represent those patterns. These representational models help students make connections to abstract concepts.

ALEKS Algebra 2 enables students to explore and interpret various functions (e.g., cubic, cube root, square root). Through this process, they create graphs that accurately represent the narratives of those functions.

The materials do not include supports for students in defining and explaining representational models to abstract concepts, nor do they include supports for students in connecting, creating, defining, and explaining concrete models to abstract concepts, as required by the TEKS.

5.4 Development of Academic Mathematical Language

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.4a	All criteria for guidance met.	1/1
5.4b	All criteria for guidance met.	2/2
5.4c	The materials do not include embedded guidance to support student application of appropriate mathematical language and academic vocabulary in discourse.	0/1
5.4d	All criteria for guidance met.	2/2
5.4e	The materials do not include embedded guidance to anticipate a variety of student answers, including exemplar responses to questions and tasks.	1/2
—	TOTAL	6/8

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

Within the Learning Page, located in the Student View, for "Integer Addition," the materials provide a video with step-by-step visual explanations that help with the development of academic mathematical language.

ALEKS Algebra 2 offers students opportunities to develop their academic mathematical language through the "Explanation" pages. For example, the explanation for "Multiplying Binomials with Leading Coefficients of 1" includes links associated with specific vocabulary words. Beginning with *simplify*, this link leads to a dictionary with visual examples, as well as a "See Also" section for further language development.

5.4b – Materials include embedded educator guidance to scaffold, support, and extend students' use of academic mathematical vocabulary in context when communicating with peers and educators.

The ALEKS Notebook includes embedded educator guidance to scaffold and support students' use of academic vocabulary in context when communicating with peers and educators through learning logs, and extends students' use of academic vocabulary in context when communicating with peers and educators through reflection prompts.

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

The materials do not include embedded guidance to support student application of appropriate mathematical language and academic vocabulary in discourse.

The materials highlight key terms within the lesson and include scaffolded definitions to support students; however, they do not provide opportunities for students to apply these terms in contextual problem-solving or to use vocabulary in real-world scenarios.

5.4d – Materials include embedded guidance to facilitate mathematical conversations allowing students to hear, refine, and use math language with peers.

ALEKS Algebra 2 includes embedded guidance to facilitate mathematical conversations, allowing students to hear math language with peers when presented with Conversation Starters and refine and use math language with peers when Reflection Prompts are used within the class setting.

5.4e – Materials include embedded guidance to anticipate a variety of student answers including exemplar responses to questions and tasks, including guidance to support and/or redirect inaccurate student responses.

ALEKS Algebra 2 includes automated feedback on student responses. If students attempt a particular question and select or enter an incorrect answer, the resource provides the correct method for solving the question. For example, when asking "What is the square root of 25?" the resource provides the Check, Hint, Explanation, and More options. These features provide step-by-step solutions or suggestions when the student has entered an inaccurate response, allowing students to understand the logic behind the answers and identify areas where they have made mistakes or have misconceptions.

The materials do not include embedded guidance to anticipate a variety of student answers, including exemplar responses to questions and tasks.

5.5 Process Standards Connection

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.5a	All criteria for guidance met.	1/1
5.5b	The materials do not include a description of how process standards are incorporated and connected throughout the learning pathways.	0/2
5.5c	All criteria for guidance met.	1/1
—	TOTAL	2/4

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

The materials integrate the TEKS process standards into each lesson. Various exercises and activities within *ALEKS Algebra 2* ask students to solve real-world application tasks. This type of practice enables students to employ a problem-solving model that involves analyzing given information.

ALEKS Algebra 2 provides a folder of assignments and skills practice for the process standards A.1(A) through A.1(G).

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

The materials do not include a description of how process standards are incorporated and connected throughout the learning pathways.

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

ALEKS Algebra 2 provides a document titled "Standards Correlation" within the Padlet that shows which process standards are embedded in the various topics that educators can assign to the students as practice.

In addition to focusing on the Algebra II content standards, the materials address the process standards by promoting problem-solving (i.e., solving open-ended problems using input tools) and encouraging reasoning skills (i.e., prompting students to demonstrate a deeper understanding by engaging in deductive and inductive reasoning).

6. Productive Struggle

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

6.1 Student Self-Efficacy

GUIDANCE	SCORE SUMMARY	RAW SCORE
6.1a	All criteria for guidance met.	3/3
6.1b	All criteria for guidance met.	3/3
6.1c	The materials are not designed to require students to make sense of mathematics through multiple opportunities for students to do, write about, and discuss mathematics with peers and educators.	0/3
—	TOTAL	6/9

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

In *ALEKS Algebra 2*, the materials provide opportunities for students to think mathematically through the student-facing learning pages for the lesson, "Solving a System of Linear Equations Using Substitution," in the "Linear Systems" Pie Slice. In this section, students are presented with two linear equations and the instruction, "Use substitution to solve the system." As students apply their knowledge of solving equations and the definition of a solution to a system of two linear equations, they have the opportunity to think mathematically, applying previously learned knowledge to new content.

The materials provide opportunities for students to persevere through problem-solving for the student-facing learning pages for the "Rational Exponents: Unit Fraction Exponents and Whole Number Bases" lesson in the "Radicals" Pie Slice. Since students receive multiple opportunities with the presented question type and an example page detailing a step-by-step process for completing the question, the materials support students in persevering through the problem-solving process.

The materials provide opportunities for students to make sense of mathematics through the student-facing learning pages for the "Domain and Range from Ordered Pairs" lesson in the "Graphs and Functions" Pie Slice. While students complete the lesson, they have access to a written, step-by-step explanation as well as a video that explains the process. Students may reference either piece while they answer questions throughout the lesson. Since students have multiple references and opportunities to practice with the question type, materials provide them with the chance to make sense of mathematics.

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

ALEKS Algebra 2 supports students in understanding that there are multiple ways to solve a problem by providing written and video explanations throughout the materials. For example, in the student-facing

learning page for the "Finding X- and Y-Intercepts of a Line Given the Equations: Basic" lesson of the "Graphs and Functions" Pie Slice, the materials provide a written step-by-step explanation of algebraically determining the x- and y-intercepts. When a student opens the video access, the materials first present "Graph by Using Intercepts" and "Use Intercepts to Graph a Line," so students hear and see the same process as the written explanation. Students who need additional help can click the "Supplementary Videos" button and access a variety of resources to support solving the initial problem, including "Find Intercepts from a Graph."

The *ALEKS Notebook Guide* supports students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks. The guide provides multiple strategies to support students in problem-solving, making connections, and reflecting on various approaches to solving problems, including the use of sentence starters and error analysis.

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

The materials are not designed to require students to make sense of mathematics through multiple opportunities for students to do, write about, and discuss mathematics with peers and/or educators.

6.2 Facilitating Productive Struggle

GUIDANCE	SCORE SUMMARY	RAW SCORE
6.2a	All criteria for guidance met.	8/8
6.2b	The materials do not include prompts or guidance to support educators in providing feedback based on anticipated misconceptions.	2/4
—	TOTAL	10/12

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

The materials support students' use of mathematical language and discourse by providing a structured space to record and reference definitions, examples, and explanations. Teachers can leverage the notebook to facilitate mathematical conversations in which students hear, refine, and apply math language with peers. In addition, the notebook enables students to document and revisit solution strategies, supporting teachers in guiding students to share, justify, and reflect on their problem-solving approaches from multiple entry points.

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

ALEKS Algebra 2 includes prompts and guidance to support educators in providing explanatory feedback based on student responses within the learning spaces. If a student answers a question incorrectly, the resource provides an "Explanation" page for them to review before answering a similar question. For example, when working on the lesson "Determining Whether Two Functions are Inverses of Each Other," students are provided with a step-by-step example of setting up the composition of functions. A lightbulb icon then provides additional information, including vocabulary, diagrams, or other methods of solving the problem.

The materials do not include prompts or guidance to support educators in providing explanatory feedback based on anticipated misconceptions.