McGraw Hill LLC

Supplemental English Mathematics, Geometry
ALEKS Geometry

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%	126	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	21 out of 38	55%
6. Productive Struggle	15 out of 21	71%

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 explicitly address 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 provide guidance and coaching supports tied to progress data to facilitate actionable feedback.	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 "Standards Correlation Document" and the "Course Syllabus" for *ALEKS Geometry* outline the Texas Essential Knowledge and Skills (TEKS) and concepts covered in each lesson and unit. These resources are accessible through the "View Correlation" and "Class Summary" links.

The "Sequence Check" section of the *ALEKS Instructor Reference Guide*, together with the "How ALEKS Works" video, demonstrates clear horizontal alignment throughout the course. Likewise, the *ALEKS Reference Guide* on the teacher's main page provides a rationale for vertical alignment. This document explains the role of Geometry as a bridge between prior grade-level content and subsequent courses.

ALEKS Geometry allows students to toggle between English and Spanish; however, it does not connect the English Language Proficiency Standards (ELPS) to the alignment guides, standards documents, or lesson materials. Instructional alignment with the ELPS cannot be achieved solely through this feature.

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.

An implementation guide titled "Getting Started with Your ALEKS Implementation" is available as a downloadable PDF. It includes step-by-step guidance on setting up a class, introducing *ALEKS Geometry* to students, assigning the initial assessment, and using both the Learning Mode and reporting features.

Usage recommendations are embedded in the *ALEKS Reference Guide*, which describes how to adapt the program for multiple formats, including full-course instruction, intervention, enrichment, and extension. This allows teachers to adjust their implementation to meet the diverse needs of students and various instructional contexts.

The *ALEKS Reference Guide* encompasses a range of topics to support implementation, including The ALEKS Blend, Personalized Modules, and ALEKS Reports. This guidance helps educators identify students' levels of mastery throughout the course and recommend topics for optimal learning. The materials explain how personalized modules enable educators to make adjustments based on student needs through prerequisite assignments or a series of just-in-time assignments. The section titled "The ALEKS Student Experience" explains how the materials are adapted to meet student needs in various contexts: "ALEKS will identify and celebrate what a student already knows coming into the course and create a personalized learning path so they can efficiently focus on what they are most ready to learn next."

The *Training & Resources* materials provide on-demand resources, such as videos and reading materials, to support implementation. The "Reports" section includes Progress Reports, which explain how to view and read reports for entire classes as well as individual students. This Progress Report indicates a student's performance in class and on assessments. The video titled "Quick Tables Report" explains how to use student data to determine the next steps regarding topics to assign to individual students as they progress through their learning paths. The "Administrator Resources" section includes "What to Look for in an ALEKS Classroom." This resource is divided into weeks based on the program start date. The material gives examples of possible instructional groupings, teacher actions, student actions, and classroom arrangements based on the implementation of *ALEKS Geometry*.

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

The ALEKS Pie and Ready to Learn tab, accessible after the student completes the 20–25 question initial assessment, provide recommended skill entry points based on diagnostic results. These system-generated suggestions identify which topics the student is ready to learn next, aligning instruction with the student's current proficiency level and supporting personalized learning.

The Pie Report, accessible through Student View after the initial assessment, displays the topics a student is ready to learn, as indicated by the ALEKS Pie and the Ready to Learn tab. This view fulfills the requirement for recommended skill entry points based on diagnostic data.

The "TEKS Correlation Guide," found under View Correlation in the Class Summary section of Class Administration, organizes *ALEKS Geometry* topics by the corresponding TEKS. While this guide ensures content alignment to state standards, it is a static document and does not integrate diagnostic data or adjust dynamically to student performance.

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

The materials provide protocols and guidance for unit and lesson internalization in the "Texas ALEKS 6–12 Topic Internalization Protocol" document. This document provides educators with step-by-step guidance on internalizing the topics and lessons, along with instructions on how to access the ALEKS Pie Reports and anticipate common student misconceptions and responses.

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

The "District and School Administrator Accounts" documents provide resources for instructional leaders to monitor implementation through reports on usage, progress, and activity time, fulfilling the requirement for leadership-facing resources. While documents such as "Getting Started with Your ALEKS Implementation" and "What to Look for in an ALEKS Classroom" offer general timelines and observational look-fors, they do not include actionable guidance or coaching strategies to help leaders support educators beyond monitoring.

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 lesson overviews that adjust based on student progress. The Time and Topic Report and Learning Sequence Log support this by documenting daily instructional activity and reinforcing TEKS alignment.

The Time and Topic Report and the Learning Sequence Log detail lesson components and include suggested timeframes based on topics attempted and mastered per day. Additionally, the "ALEKS Recommendations and Implementation" video suggests five to nine topics per hour. It describes how this pace may slow as topic complexity increases, thereby fulfilling the requirement for lesson components with allocated time.

The materials include assessment resources aligned with the TEKS, accessible through the Assignments tab on the teacher dashboard. Teachers can create custom quizzes, tests, and goal-based assignments such as Pie Goals or Time Goals, all of which can be tied to specific TEKS. There is no structured documentation or overview explicitly connecting lesson goals or assessments to 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 families with their student's login,

summarizes the terminology used within the *ALEKS Geometry* program, and outlines the recommended amount of time their student should spend using the program each week. These resources are available in Spanish and English.

The "Parents' Guide to Student Reports" guides families on how to track their child's progress and understand what their child has been working on within the *ALEKS Geometry* platform. The resource provides families 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 *ALEKS Reference Guide* describes the intended purpose for various assessment types, including Scheduled Knowledge Checks, Homework, Quizzes, Tests, and Video Assignments.

The Insights dashboard provides real-time formative assessments intended to inform instruction and evaluate student progress. Categories such as Failed Topics, Decreased Learning, and Procrastination help educators identify learning trends and adjust support accordingly, as explained in the "ALEKS Insights Overview" video.

The materials include formal definitions of the assessment types found in the video "What is a Knowledge Check?"

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

ALEKS Geometry includes guidance to ensure the consistent administration of instructional assessments through the use of Modules, as outlined in the *ALEKS Reference Guide.* Teachers can assign specific topics, set start and due dates, and schedule Knowledge Checks to support uniform pacing across students.

The materials provide guidance to ensure the accurate administration of instructional assessments by supporting randomized question delivery through Question Pooling (*Reference Guide*, p. 15), which prevents students from receiving identical questions and maintains the reliability of the assessment.

The materials support consistent and accurate administration of instructional assessments through the "Creating Assignments" training video, which explains how to build assessments and apply reporting filters to monitor student mastery with fidelity in both administration and scoring.

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.

Printable versions of digital assessments, including quizzes, tests, and homework, are available through the Assignments menu and within Knowledge Checks.

Digital assessments provide accommodations, including a student-controlled bilingual toggle and a virtual calculator. The bilingual toggle, located in the on-screen toolbar during homework, quizzes, and tests, can be used by students at their discretion. However, educators can only enable or disable this feature and the virtual calculator globally for the entire class via the Class Options menu under Class Administration; they cannot apply these settings at the individual student level.

Digital assessments do not provide a text-to-speech accommodation that educators can enable or disable to support individual students. Although a screen reader can be activated during class creation, it disables essential features such as the calculator, bilingual toggle, videos, and 127 content topics, making it an unsuitable tool for supporting individual students.

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

Diagnostic assessments include TEKS-aligned tasks or questions with varying levels of complexity, such as basic recall, reasoning, and extended application. For example, the TEKS 6.B standard includes tasks that require students to complete formal triangle congruence proofs using methods such as SSS and SAS, while the TEKS 5.B standard involves using geometric construction tools to build congruent angles and bisectors.

The materials include more than two unique interactive item types within diagnostic assessments. These include open-response questions (e.g., triangle proofs), drawing tasks using digital rulers and compasses (e.g., constructing parallel lines in TEKS 5.B), and graphing tasks (e.g., rotating figures in TEKS 3.A) that require students to engage with geometry concepts in multiple digital formats.

Teachers can create diagnostic assessments with TEKS-aligned questions of varying complexity by using the "+ New" button in the Assignments tab, selecting homework or quizzes, switching to View by Standards, and previewing items grouped by TEKS and complexity level. Interactive item types can also be created through the My Questions feature under the Assignments menu.

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

ALEKS Geometry includes formative assessments, including Scheduled Knowledge Checks, Pie Progress Goals, Topic Goals, Quizzes, and Tests, all of which are aligned to the TEKS and available under the Assignments tab.

Formative assessments include at least three unique interactive item types. For example, tasks require open-response questions, digital geometric constructions using tools such as rulers and compasses, and graphing transformations, including rotations about the origin.

The materials offer questions grouped by varying complexity levels, including basic, application, and extended reasoning. For instance, the TEKS 6.B standard includes reasoning questions proving triangle congruence, while the TEKS 3.A standard includes multi-step graphing questions involving transformations.

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.

Instructional assessments include scoring information and guidance for interpreting student performance through the ALEKS Pie Report, which indicates the topics that students have mastered, are ready to learn, or have not yet attempted. This feature helps teachers group students by readiness level and make informed instructional decisions, as described in the *ALEKS Reference Guide* under "Reports: Pie Report."

Scoring information and guidance are provided when students complete an assignment and select the "Review" button. This launches a summary screen showing correct responses with step-by-step explanations, supporting student understanding of how to solve the problem, as demonstrated in the "Reviewing Completed Assignments" section of the "How ALEKS Works" video.

The instructional assessments use free-response formats, and the platform provides a complete explanation of the correct solution path after a student submits a response. This enables teachers to infer likely misconceptions and interpret performance trends, but does not provide a rationale for incorrect responses.

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

The materials provide guidance for responding to student trends in performance, such as through the ALEKS Pie Report, which shows which TEKS are consistently missed across a class, changes in student performance over time, and identification of students who are plateauing or accelerating.

Digital materials enable teachers to create subclasses within a course, allowing them to differentiate instruction based on performance trends identified in reports, such as the ALEKS Pie Report, and ensure targeted intervention for specific student groups.

Based on student performance in Knowledge Checks, adaptive tasks and the student's Pie Chart dynamically adjust to recommend a modified pathway, offering teachers actionable insights to assign appropriate follow-up tasks aligned to areas of need.

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 Geometry includes tools for teachers to track student progress and growth, such as the ALEKS Pie Report, which provides visual data on individual and class-level mastery and progress. This report is accessible under the "Reports" tab in the Class section of the teacher dashboard.

The materials include tools for students to track their own progress and growth, such as the Pie Progress History report, which displays completed topics, mastery percentage, and time spent per topic. Students access this from the Reports menu on their dashboard by selecting Pie Progress History and clicking View All.

Additional teacher tools, such as the Time and Topic Report and its embedded Learning Sequence Log, provide detailed data on student topic attempts, outcomes, and timestamps. These features are described in the *Reference Guide* and the training video titled "Time and Topic Report" under the Reports menu.

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.

Digital materials include adaptive Knowledge Checks that are triggered automatically to assess mastery and retention. These checks affect a student's Pie Chart and are personalized based on individual progress, as described in the *ALEKS Reference Guide*.

Educators can create additional checkpoints throughout a lesson by accessing the "Assignments" link under the "Assignments" drop-down menu in the Class tab and selecting "Scheduled Knowledge Check" from the list of options.

The video "How ALEKS Works," available in the "Getting Started with ALEKS" section under "Attend Online Training," explains that the platform periodically reassesses students to ensure retention, exemplifying its built-in frequent checks for understanding.

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 pre-teaching, supports related to academic vocabulary, or 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 components 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.

Materials include explicit educator guidance for scaffolding students who have not yet reached proficiency, such as video training that explains how *ALEKS Geometry* automatically adjusts the learning path using "Prior Grade Level Prerequisite" content (as shown in the "How ALEKS Works" video). Additional guidance is provided through training videos, such as "Creating a Sub-Class in Open Learning" and "Moving a Student to a Sub-Class in Open Learning," which help teachers customize lessons for targeted intervention. Teachers can also assign prerequisite skills as described in the *Reference Guide* and monitor student progress using the Progress Reports and Insights Reports to identify struggling students and plan support.

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.

The materials include embedded supports for developing academic vocabulary, such as clickable hyperlinks within the Learning Page that direct students to the *ALEKS Dictionary*, where they can access definitions and explanations for specific terms ("Getting Started with ALEKS video").

The materials include embedded supports for unfamiliar references in text through built-in platform features such as the correct answer found for the TEKS G11.B standard under Explanation, Example, and Show This, which clarify unfamiliar terms and reinforce understanding directly within the student interface.

The materials do not include explicit educator guidance for pre-teaching supports related to academic vocabulary or unfamiliar text 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.

ALEKS Geometry's digital materials include explicit educator guidance for extension activities for students who have demonstrated proficiency in above-grade-level content and skills. The video "How ALEKS Works" explains that the program automatically pulls from the "Topics Not Aligned to these Standards" folder to support advanced learners.

Teachers can assign additional *ALEKS Geometry* topics, such as the law of sines, cosines, or vectors, which extend learning above the current grade level and are accessible through the "Assignments" tab.

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.

A bilingual toggle, online dictionary, and a virtual calculator are available during homework, quizzes, and assessments; however, these tools cannot be enabled or disabled by educators for individual students.

The program offers a screen reader that can be activated during class creation, but enabling it disables key features, including the calculator, bilingual toggle, videos, and dictionary, rendering it ineffective as a text-to-speech accommodation for individual students.

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 include a "Class Forum" option that allows educators and students to "facilitate discussion among students and with the instructor." Educators and students can "post a new thread, answer questions, add comments, and upload attachments" to allow students to demonstrate, express, and represent their understanding of the concepts they are learning through writing and adding attachments.

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 and 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.

The *ALEKS Notebook Guide* provides educators with prompts and guidance to help students build knowledge by activating prior knowledge, anchoring big ideas, and highlighting and connecting key patterns, features, and relationships through multiple means of representation. The sentence starters and helpful tips provide explicit guidance for educators, including examples for each type of activity that can be completed in the student's individual notebook. The reflection prompts help students activate their background knowledge before beginning a new topic. At the same time, the visual aids, mini-lessons, and learning log sections enable students to anchor big ideas and connect them to key patterns and relationships.

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.

ALEKS Geometry includes multi-tiered intervention methods for various types of practice, such as guided learning through ALEKS activities as seen in the video "12 Tips for Distance Learning for Teachers," including scaffolded support after incorrect responses, and independent practice using personalized printed worksheets.

The materials include multi-tiered intervention methods for various structures, such as whole-group instruction, small-group sub-classes created using the ALEKS Pie Report, and individualized assignments based on learning gaps identified in the Pie Report recommendations.

Educator guidance to support the effective implementation of multi-tiered interventions is provided through resources such as the *ALEKS Reference Guide* and training videos, including "12 Tips for Distance Learning for Teachers" and the "ALEKS Pie Report" video.

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

ALEKS Geometry includes enrichment and extension methods that support various forms of engagement, such as assigning content from "Topics Not Aligned to these Standards" and creating additional assignments for sub-classes using topics like probability and data analysis.

The materials do not include clear guidance to support educators in the effective implementation of enrichment and extension methods. While videos and documents explain how to create and assign sub-classes, they do not offer direction on what to assign or how to implement these resources meaningfully.

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

The materials do not include prompts to support educators in providing timely feedback during lesson delivery. Reports such as "Failed Topics" or "Decreased Learning" are generated after students complete tasks, but they do not provide real-time instructional feedback.

The PIE Report helps guide educators in providing timely feedback during lesson delivery by tracking student progress in real-time. The report identifies the skills where students require support and those where they have achieved mastery.

The live dashboard that teachers use to monitor student work displays student responses, pace, and accuracy as they work through tasks. As educators identify who is struggling or excelling, they can step in and give immediate feedback to the student.

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.

The materials include embedded linguistic accommodations aligned with pre-production, beginning, intermediate, high-intermediate, and advanced levels of language proficiency. These accommodations include an "Español" toggle feature that instantly translates content and support elements, such as problem statements, definitions, and visuals. For example, in the lesson "Word Problem Involving the Volume of a Sphere," translated vocabulary scaffolds learners from everyday terms like *metal* to academic terms such as *substituting* and *volume*.

Students can click on mathematical terms for instant definitions and visual representations in both English and Spanish, as confirmed in student view via the Español toggle and the "more" option in

assignments. This feature supports pre-production, beginning, intermediate, high-intermediate, and advanced bilingual students in engaging with increasingly academic language, as observed in lessons such as "Finding an Angle Measure Given a Triangle and Parallel Lines" and "Constructing the Perpendicular Bisector of a Line Segment."

One reviewer noted that toggling between English and Spanish can generate new problems in some cases, which may disrupt continuity for learners. Despite this, the instructional materials still include sufficient embedded accommodations designed to support all levels of language proficiency and promote increasing academic language development, meeting the full intent of the indicator.

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

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 Geometry 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 practicing 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 reading strategy, Vocabulary Pre-Teaching, located in the *EB Guide*, teachers support emergent bilingual students in developing academic vocabulary and increasing 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, as students have templates for different writing styles, enabling them to compare their non-English language structure with that provided in an academic context.

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; however, questions and tasks increase in rigor, leading to proficiency at or above grade level.	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.

Practice opportunities within the learning pathways require students to demonstrate depth of understanding aligned to the TEKS, such as the TEKS 9.B standard, "Apply the relationships in special right triangles to solve problems," where students must calculate the area of a regular polygon by first finding the apothem using 30–60–90 triangles. This task includes embedded "light bulb" explanations, such as "How do we know the triangles are equilateral?" and "Dividing an equilateral triangle," to deepen conceptual understanding.

Instructional assessments include tasks such as "Identifying properties of Euclidean and spherical geometries" under the TEKS 4.D standards, which require students to evaluate true/false statements, compare and justify, and provide counterexamples, demonstrating a sophisticated level of reasoning about geometric systems.

Multiple TEKS-aligned assignments, such as those in TEKS G.11.C and G.6.D, offer 17 or 26 different problem types, respectively, including applications of surface area in real-world contexts and tasks to verify and apply triangle theorems—ensuring students engage in a range of conceptual and applied problem-solving.

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.

Questions and tasks increase in rigor and complexity, leading to grade-level and above-grade-level proficiency in the mathematics TEKS. For example, TEKS 2.B includes 13 different problem types that progress from calculating distance to deriving the formula and verifying geometric relationships. These

items are accessible by selecting the standard from the Assignments tab and previewing problems using the Standards view.

The "Topics Not Aligned to These Standards" section in the *Content Editor* includes advanced tasks, such as "Squaring and Multiplying 2x2 Matrices," supporting above-grade-level proficiency beyond the Algebra I TEKS. Teachers can access this content by navigating to "Class Administration, Class Summary, and Edit" under *Content Editor*.

While the platform contains rigorous tasks and higher-level topics, no enrichment or extension materials were found that are designed to deepen or extend learning beyond the core scope.

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 by connecting students' prior knowledge of concepts and procedures to the mathematical concepts 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.

The *ALEKS Geometry* materials demonstrate coherence by connecting students' prior procedural knowledge to current grade-level concepts through notebook activities, such as Write Out Solutions and Error Analysis. These tasks prompt students to revisit familiar strategies, explain their reasoning, and apply known procedures to new problem types.

Materials also support concept-to-concept coherence through Learning Logs that encourage students to summarize current topics and connect them to previously studied mathematical ideas.

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

In *ALEKS Geometry*, adaptive materials review foundational concepts, such as the real number system and operations with real numbers, reinforcing middle school and Algebra I content to support vertical coherence across grade bands.

The digital materials include tasks that connect proportional reasoning from grade 8 (TEKS 8.5.G) to similarity in triangles, such as in the lesson "Relationships about ratios within and between similar triangles," reinforcing patterns and mathematical relationships across grade levels.

The materials extend the understanding of function transformations across courses, with lessons such as "Translating a point and giving its coordinates: Two steps," which builds on translation skills introduced in Algebra I and prepares students for advanced function transformations in Algebra II and Precalculus.

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.

The materials connect students' prior knowledge of concepts and procedures to current grade-level Geometry content using the ALEKS adaptive engine, which selects tasks based on demonstrated mastery, as described in the "How ALEKS Works" video under the "Math Curriculum Training" section.

Teachers can assign reviews of foundational algebraic and geometric concepts from earlier grade levels to prepare students for the current Geometry TEKS by customizing content through the main dashboard and the "How ALEKS Works" video resource.

The materials do not connect concepts or procedures to future grade levels, as *ALEKS Geometry* is intentionally designed to deliver content based on current readiness rather than to preview or prepare students for content beyond their demonstrated level, as explained in the "How ALEKS Works" training video.

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 Geometry facilitates spaced retrieval of previously learned skills across learning pathways through adaptive features, such as Knowledge Checks, which the teacher can schedule to assess and reinforce prior skills before advancing to current topics, as described in the *Reference Guide* and demonstrated in the "Start My Path" function on the student dashboard.

The materials support spaced retrieval of previously learned concepts by allowing students to revisit topics through the Ready to Learn menu, which lets them select previously mastered content, such as decimals, for independent review, as demonstrated in the "Student Experience in ALEKS" video.

The "How ALEKS Works" video explains that periodic individualized assessments not only check for retention but also strengthen it, ensuring that both concepts and skills are continuously revisited throughout the course to support long-term mastery.

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

The materials provide interleaved practice with previously learned skills through repeated exposure to translation problems, which are integrated into 31 different lessons across five "Big Topics." Teachers can locate these under Assignments, New, or View by Standards by browsing the standards folders that include translation content.

Interleaved practice with previously learned concepts is supported through the Knowledge by Slice report, which displays the variety of subtopics students must master to understand broader concepts; this report is accessed under the "Class, Reports" tab as the final report in the list.

ALEKS Geometry supports the ongoing mixed practice of learned skills and concepts through tools such as Knowledge Checks, Pie Progress Goals, Time Goals, and Topic Goals, all of which are assignable from the Learning Page, as outlined in the "ALEKS Pie and Timeline" section of the *ALEKS Reference Guide*.

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	The materials do not include questions and tasks that provide opportunities for students to evaluate mathematical concepts and complex real-world situations.	2/3
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**	4/6

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

ALEKS Geometry includes questions and tasks that require students to interpret mathematical concepts and apply them to real-world situations. For example, tasks such as "Word problems involving the rate of filling or emptying a rectangular prism" guide students through step-by-step interpretation of context.

The materials support the analysis of mathematical concepts and real-world situations through tasks like "Word problems involving the Pythagorean Theorem in three dimensions," which require students to analyze how multiple triangle relationships interact to solve complex problems.

While some tasks may involve elements of evaluative thinking, such as determining which triangle sides to use in a multi-step problem, the materials do not consistently include tasks that explicitly require students to evaluate mathematical concepts or justify conclusions.

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

ALEKS Geometry includes questions and tasks that require students to create representations of mathematical situations, such as drawing lines to decompose shapes in order to calculate area and graphing functions to model real-world contexts (e.g., "Decomposing a Trapezoid or Parallelogram to Find its Area Given a Situation in Context").

Tasks provide visual and numerical representations using tools like graphs and diagrams; for example, students generate pictorial representations to explore the area and perimeter of circles in the "Area & Perimeter of Circles" assignment.

There is no evidence that students are asked to create concrete models of mathematical situations using physical manipulatives or objects, and while nets and diagrams appear in lessons, students are not expected to build or construct physical models.

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

ALEKS Geometry enables students to apply conceptual understanding to new contexts through real-world word problems, such as "Using Trigonometry to Find Angles of Elevation or Depression in a Word Problem" and "Using Trigonometry to Find a Length in a Word Problem with One Right Angle," found under Assignments when viewing by "Standards."

Interactive features, such as step-by-step solving tools and the Try Another option, are available in topics located by navigating to Assignments, then selecting New Homework and choosing topics via the "Select" drop-down menu on the teacher dashboard.

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	The materials do not provide opportunities for students to evaluate mathematical representations, models, strategies, and solutions for efficiency, flexibility, and accuracy throughout learning pathways.	0/3
5.2d	The materials do not contain guidance to support students in selecting increasingly efficient approaches to solve mathematics problems.	0/1
—	**TOTAL**	5/9

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

The materials provide tasks, such as multiplication drills, designed to help students develop the automaticity necessary to complete grade-level mathematical tasks. Students engage in repeated practice with immediate feedback in Learning Mode, and tools, such as QuickTables, allow teachers to assign timed practice with basic operations to strengthen automaticity.

The materials provide tasks, such as "Arithmetic and Algebra Review," that are designed to build the fluency necessary to complete grade-level mathematical tasks. Instructional sequences include prerequisite skill reviews and clustered practice aligned to the TEKS, with progress tracked through tools such as the ALEKS Pie Report and Topic Goals to support fluency over time.

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

The materials provide opportunities for students to apply efficient and accurate mathematical procedures through ALEKS's "Learning Mode" and assigned tasks such as "Solving a Right Triangle," where the "Explanation" tool models the most direct and correct method for problem-solving.

Personalized learning pathways based on the Initial Knowledge Check and assignments aligned to the TEKS, such as G10.B, guide students toward fluency with accurate procedures through consistent practice and adaptive feedback.

ALEKS Geometry provides students with opportunities to practice applying mathematical procedures with flexibility. For example, students construct triangle congruence proofs by selecting from multiple logical paths, varying the order of statements and reasons. Additionally, students use interactive tools to experiment with sequences of rigid or similarity transformations, choosing their own steps to determine which procedures lead to equivalent results.

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

The materials do not provide opportunities for students to evaluate mathematical representations, models, strategies, and solutions in terms of efficiency, flexibility, and accuracy.

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 mathematical problems. For example, in the lesson "Solving a right triangle," the explanation tool displays only one solution method.

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	The materials do not provide opportunities for students to use concrete models.	2/3
5.3c	The materials do not include supports for students to connect, create, define, or explain concrete models. The materials do not include supports for students to explain pictorial representations in terms of abstract models.	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 Geometry provides students with opportunities to utilize pictorial representations and abstract models, as demonstrated in the lesson "Using Trigonometry to Find a Length in a Word Problem with Two Right Triangles," where labeled diagrams facilitate problem-solving using trigonometric ratios.

Lessons include abstract models, such as algebraic equations used in "Writing Equations of Lines Parallel and Perpendicular to a Given Line Through a Point."

There is no evidence that students engage with or create concrete models to support understanding of mathematical concepts, which prevents the materials from fully meeting all components of the indicator.

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

The materials include representational models, such as labeled triangles and diagrams, in lessons like "Using Trigonometry to Find a Length in a Word Problem with Two Right Triangles," which support students in connecting representational models to abstract mathematical formulas. Students have opportunities to create representational models, such as sketching diagonals in polygons to derive and apply formulas, and solving proportions using visual models aligned to real-world contexts, as seen in "Finding a Diagonal in a Polygon." Materials do not include supports for students to connect, create,

define, or explain concrete models, nor do they offer opportunities for students to explain or define representational models. All representations are pre-constructed and labeled.

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.

ALEKS Geometry provides students with opportunities to develop their academic mathematical language through the use of visuals. For example, in the lesson "Inscribed Angles in Relation to a Diameter or a Polygon Inscribed in a Circle," students can click a "more" button next to the terms *inscribed angle* and *intercepts an arc* to view visual illustrations that reinforce the vocabulary.

The materials support language development through interactive tools. In the lesson "Reflecting a Polygon Across the X-axis and the Y-axis," students use a digital graphing tool to explore reflections, helping them connect mathematical language such as (x, –y) and (–x, y) to visual transformations.

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 *Emerging Bilingual Guidebook* includes a section titled "Develop Routines for Mathematical Discourse," which provides classroom implementation tips to guide teachers in scaffolding, supporting, and extending students' use of academic mathematical vocabulary. It explains that teachers should intentionally model the use of vocabulary and language structures because it will help "students not only internalize key math concepts but also develop the language functions necessary to describe, compare, analyze, and defend their thinking." It suggests that teachers use sentence stems, collaborative learning structures, and math discussion protocols in conjunction with visual supports, such as diagrams and word banks, to scaffold participation.

The *ALEKS Notebook Guide* provides embedded educator supports to scaffold, reinforce, and extend students' use of academic mathematical vocabulary in context when communicating with peers and educators. The guide encompasses a range of strategies designed to foster meaningful mathematical discourse. For example, sentence starters integrated throughout the strategies provide students with

opportunities to articulate their thinking both orally and in writing. The error analysis strategy helps students identify where errors occurred in their work or that of their peers, explain why those errors happened, evaluate more efficient approaches, and work through the problems to find correct solutions. The visual aids strategy encourages students to represent concepts through graphs, charts, diagrams, and flowcharts, thereby enhancing understanding and retention, particularly for abstract ideas. Reflection prompts allow students to process their learning after lessons or Knowledge Checks by identifying what made sense, what was challenging, and what strategies they will try next.

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.

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

The *ALEKS Notebook Teacher's Guide* includes embedded guidance to facilitate mathematical conversations, allowing students to hear, refine, and use math language with peers, such as Reflection Prompts and sentence stems.

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.

The materials include embedded guidance that supports students in redirecting inaccurate responses. Each lesson contains an Explanation feature, accessed via the glasses icon, which presents a step-by-step walkthrough of the correct solution process. For example, in the lesson "Establishing Facts About the Interior Angles of a Triangle," the Explanation provides a general proof and clarifies the concept that the sum of the interior angles is 180 degrees. In "Finding an Angle Measure Given a Triangle and Parallel Lines," the Explanation offers a "Faster Way" strategy, helping students visualize alternate problem-solving methods. Additionally, when students submit incorrect answers, the system gives immediate feedback such as "Try Again. Your Answer is Incorrect". Materials do not include embedded guidance to anticipate a variety of student answers or provide exemplar responses to questions and tasks. There are no teacher-facing supports for identifying possible student responses or common misconceptions, and no examples of correct or incorrect sample student work are available within the platform. The teacher view does not provide any form of suggested feedback or scaffolds for addressing likely errors in reasoning.

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.

ALEKS Geometry includes assignable content explicitly aligned to the TEKS process standards. For example, educators can select standards directly when creating assignments using the "View by Standards" option in the assignment builder.

The materials provide documentation and reporting tools that connect student progress to the TEKS process standards. The "Standards Report" enables educators to monitor mastery, and the *ALEKS Resources for TX* Padlet includes a correlation chart that maps content to the TEKS process standards.

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

The materials do not provide a clear description of how process standards are incorporated throughout the learning pathways. While the "Class Syllabus" and "Standards Report" list which lessons align with process standards, they do not explain how these skills are developed across instructional sequences.

Although educators can view process standards-aligned lessons in the *Content Editor*, the platform does not describe how process standards connect across multiple topics or build coherently through the student pathway.

The learning pathway generated after a knowledge check is individualized but does not include narrative or structural guidance on how process standards are intentionally connected across lessons to support long-term skill development.

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

The materials include a TEKS correlation document, located on the *ALEKS Resources for TX* Padlet, that aligns each process standard to specific ALEKS topics. This enables educators to pinpoint which topics align with each process standard.

Although the materials do not provide an explicit overview embedded within each lesson, and the distinction between topics and lessons is not clearly defined in the documentation, the correlation document allows educators to infer how process standards are incorporated across the content.

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	The materials do not contain opportunities for students to think mathematically or make sense of mathematical concepts.	3/3
6.1b	All criteria for guidance met.	3/3
6.1c	The materials do not include tasks requiring students to do, write about, or discuss mathematics with peers or 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.

ALEKS Geometry provides structured opportunities for students to persevere through problem-solving, such as requiring multiple correct responses to earn progress bars and advance in the learning path (e.g., three consecutive correct answers or a total of five correct responses). Incorrect responses trigger consequences such as bar removal or loss of progress, encouraging persistence.

Students receive multiple attempts at a problem type in assignments and homework, along with explanatory feedback following errors. Goal-setting tools, such as Time Goals and Progress Goal Setting, further promote sustained engagement and independent effort.

The Learning Page and Explanation pages of topics in the "Student View" materials support mathematical thinking and sense-making by including clear explanations at the start of each topic and throughout the topic. These Learning Page explanations break down problem-solving steps, highlight key vocabulary with links to the *Dictionary*, which provides definitions and examples, incorporate visual models, and use lightbulb icons that offer alternative methods of solving or additional information to deepen understanding. The program directs students to the "Explanation" page after they have attempted to answer a question multiple times without success.

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

The materials support students in understanding that there can be multiple ways to solve problems and complete tasks, such as allowing different valid proof sequences in the lesson "Completing Proofs Involving Congruent Triangles Using ASA or AAS."

The lesson "Transformations" encourages students to think about multiple sequences of rigid motions to prove congruence, reinforcing the idea that more than one solution path can be correct.

The *ALEKS Notebook* provides questions to support students in explaining and justifying that there can be multiple ways to solve problems and complete tasks, such as "Were there other methods you could have used? What is the most efficient way to solve this problem? Why?"

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 designed to require students to make sense of mathematics through multiple opportunities for hands-on math practice, such as solving problems with varied language and structure in the lesson "Introduction to Permutations and Combinations." However, the platform does not require students to work with peers and/or educators.

Students engage with transformation-based reasoning in the "Transformations" lesson, where multiple solution paths or none are presented, prompting students to make sense of the mathematics through repeated application, but there is no requirement for students to work with peers and/or educators.

The materials do not include tasks requiring students to write about or discuss mathematics with peers 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 provide prompts or guidance related to anticipated misconceptions and do not offer embedded instructional prompts to support educator responses.	1/4
—	**TOTAL**	9/12

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.

ALEKS Geometry features embedded teacher guidance and structured student tasks that encourage students to share their problem-solving approaches through explanations, justifications, and logical arguments.

The platform includes prompts for error analysis and reflection, encouraging students to evaluate their own reasoning and compare it with other solution strategies. These tasks enable students to reevaluate misconceptions and deepen their conceptual understanding.

Students are given opportunities to enter problems from different conceptual pathways, and educators are supported in highlighting multiple methods and guiding students to articulate which approach they used and why.

Teacher-facing resources provide tools to facilitate mathematical discussions and student reflection, supporting learners in refining their problem-solving processes and identifying key steps in their reasoning.

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

ALEKS Geometry includes guidance to support educators in providing explanatory feedback based on student responses, which can be found in the Insights Notification System, described in the FAQs section under the Green House tab.

Educators automatically receive Insights emails, which provide guidance on student performance data and suggest methods for targeted feedback.

The materials do not provide prompts or guidance related to anticipated misconceptions, nor do they offer embedded instructional prompts to support educator responses.