

IXL Learning, Inc.

Supplemental English Mathematics, Geometry

IXL Math Geometry

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Supplemental	9781947569355	Digital	Adaptive

Rating Overview

TEKS SCORE	TEKS BREAKOUTS ATTEMPTED	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	144	1	Flags Addressed	Not Applicable	0

Quality Rubric Section

RUBRIC SECTION	RAW SCORE	PERCENTAGE
1. Intentional Instructional Design	13 out of 21	62%
2. Progress Monitoring	19 out of 23	83%
3. Supports for All Learners	24 out of 37	65%
4. Depth and Coherence of Key Concepts	9 out of 16	56%
5. Balance of Conceptual and Procedural Understanding	25 out of 38	66%
6. Productive Struggle	19 out of 21	90%

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	1	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	Materials do not include an alignment guide for the ELPS.	2/5
1.1b	All criteria for guidance met.	3/3
1.1c	All criteria for guidance met.	2/2
1.1d	Materials do not include specific guides for unit internalization.	1/2
1.1e	Materials do not include pacing recommendations, and offer limited support for instructional leaders.	2/2
—	TOTAL	10/14

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.

Materials include an alignment guide outlining the Texas Essential Knowledge and Skills (TEKS) 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. Specific examples include three activities linked to TEKS G.2A, which are "1. Midpoints," "2. Midpoint formula: find the midpoint," "3. Partition a line segment in a given ratio." However, materials do not include an alignment for the English Language Proficiency Standards (ELPS).

Materials provide a rationale for both vertical and horizontal alignment within the curriculum. For example, the "Skills" practice "W. Circles" opens all related practice topics, and clicking on "1. Parts of a Circle" directs users to the corresponding practice activity. Each practice includes the embedded prompt "Work it out. Not feeling ready yet? This can help," which directs students to review resources like "Lesson: Parts of a Circle." These supports are designed to reinforce prerequisite skills and build foundational understanding. Additionally, the "Teacher Tools" feature allows educators to adjust difficulty by clicking double carets (<< or >>) to "Jump a Level," enabling targeted review or acceleration based on student need.

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.

Within the "My IXL" section, "Resources" offers "Implementation Guides" for varied instructional contexts. These supports are delivered through downloadable PDFs and instructional videos for teachers.

The "Daily Instruction Guide" includes identifying a skill that supports the day's lesson, reinforcing student understanding through skill practice, and determining next instructional steps with the "Skill Analysis" report.

The "Diagnostic Assessment" includes tools to uncover students' knowledge levels, provide personalized next steps for each learner, and offer up-to-date insights.

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

Materials include a "TEKS Correlation Guide," accessible by navigating to IXL, What We Offer, Standards, Math, Geometry. This guide supports differentiated instruction by allowing teachers to assign skills aligned to the TEKS based on student performance data from diagnostic assessments, which can be accessed through the "View Reports" feature.

The "Differentiation Guide" serves as the initial point of access for the diagnostic assessment in Real-Time Mode. Teachers can navigate to Differentiation Guide, Assessment, Learn More, For Teachers, Real-Time Mode, View Teacher Guide. This tool provides data aligned with state assessment results and supports educators in placing students in appropriate lessons based on their performance.

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

Materials include protocols for lesson internalization to support both educators and students. For example, navigating to Learning, Math, Grades, Geometry provides access to skills practice organized by topic. Within the "Midsegment of Triangles" lesson, a dedicated section allows students to review prior content to strengthen foundational understanding. This section includes the embedded prompt, "Work it out. Not feeling ready yet? This can help," which directs users to review resources like "Solve linear equations: mixed review" and "Midpoints." These features provide opportunities to connect prior knowledge to current learning objectives. However, materials do not include specific guides for unit internalization.

Materials for IXL Math include the IXL "Teacher's User Guide." Accessed through IXL, Resources, User Guides, Teachers, Complete Guide, the resource provides an overview of IXL usage, including "Accessing Standards Aligned Skills." However, materials do not include guides for unit internalization.

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

Materials include strategies to support educator implementation, such as daily instruction, core curriculum integration, diagnostic assessments, standardized test preparation, personalized practice, and whole-class instruction. Located by navigating to IXL, Resources, User Guides, each implementation strategy is accompanied by a PDF and a tutorial video that outlines the steps needed for effective classroom use.

Materials include the "Implementation Guide for Diagnostic Assessment," which provides a three-step process: 1) Students complete the initial diagnostic, 2) Teachers access personalized action plans based on student results, 3) Teachers track progress through either the weekly completion of 10–15 diagnostic questions or consistent engagement with IXL skill practice. While these resources support classroom instruction, the materials do not include pacing recommendations and offer limited support for instructional leaders, as the program is primarily designed for direct use by teachers.

1.2 Lesson-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.2a	This guidance is not applicable to the program.	N/A
1.2b	Materials do not include detailed overviews with learning objectives and assessment resources aligned with the ELPS. Materials do include detailed overviews with learning objectives, lesson components with suggested time frames, and assessment resources aligned with the TEKS.	1/5
1.2c	All criteria for guidance met.	2/2
—	TOTAL	3/7

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.

Materials include comprehensive unit overviews that provide a detailed list of lesson components aligned to the TEKS. TEKS lesson overviews are organized by strand. Materials include comprehensive unit overviews that provide a detailed list of lesson components, TEKS, and student expectations aligned to the lesson components. Students have the opportunity to learn from an example or watch a video.

Materials include detailed lesson overviews accompanied by interactive online resources, materials, and assessments. Each lesson example supports lesson internalization, beginning with a key idea that introduces the topic and provides a detailed explanation aligned to skill-based questions. Each question includes an "Enable" function with a digital timer to support pacing. Materials provide opportunities for students to engage in group work through "Start Group Jam." Materials do not include resources for ELPS alignment.

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

Materials provide step-by-step guidelines in English to help families support their child's engagement in learning. The "Communicate with Parents" section includes an "IXL Parent Guide" video in English with Spanish subtitles, and a "Parent Handout" and "Analytics Guide" are available for families in both Spanish and English.

Materials include support for families in Spanish and English, with suggestions on ways to engage students' learning when using IXL Math at home. PDF handouts for parents are available for download in both Spanish and English from "Printable Resources." Educators can choose from two types of handouts. The first option is a prefilled form with the student's name and password, and the second option is a blank form. Both handout types are offered in both Spanish and English.

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	Materials do not include accommodations, including content and language supports, and calculators that educators can enable or disable to support individual students. Materials do include some printable assessments and a text-to-speech accommodation that educators can enable or disable to support individual students.	2/4
2.1d	All criteria for guidance met.	4/4
2.1e	All criteria for guidance met.	4/4
—	TOTAL	14/16

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

Materials include the intended purpose for diagnostic assessments in My IXL "Resources," stating diagnostics "pinpoint(s) students' grade-level proficiency and generate(s) personalized action plans to help learners grow."

The "Guide to Understanding the Diagnostic Action Plan" provides guidance and examples for using diagnostic assessments to inform instruction. This guide supports teachers in adjusting the instructional pathway for individual students based on their diagnostic results.

Materials do not include a definition or intended purpose for summative and formative assessments.

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

Materials include a "Quick-Start Guide" that features the "Flex Diagnostic Real-Time Mode," which provides step-by-step guidance for teachers on accurately administering the IXL "Flex Diagnostic." The program also offers suggested time frames for continuing the diagnostic.

While the materials include both formative and summative assessments, guidance for the accurate and consistent administration of these assessments is not provided.

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.

IXL Math provides the opportunity to print teacher-created "Quizzes"; however, no other assessments in the materials include a printable version. The diagnostic assessment is adaptive and cannot be printed.

The "IXL Diagnostic" assessment includes a text-to-speech option that can be enabled or disabled to support individual students, but this accommodation is not available for other assessments provided in the materials.

Materials do not include content and language supports. While the materials do include the ability to turn on translation support for individual students, this does not meet the definition of content and language supports, examples of which include pop-ups and rollovers.

A calculator is provided in the materials for some grade levels, but there is no ability to enable or disable this accommodation for 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 more than two unique interactive item types, such as multiple choice, graphing, drag and drop, text entry, and multi-select questions aligned with the TEKS.

The "Diagnostic Hub Student Guide" explains how the diagnostic assesses student knowledge through varying complexity levels and a progression of skills ranging from basic recall to multi-step reasoning and supports personalized learning paths. While evidence of complexity is implicit in the questions, the questions are not explicitly labeled by complexity level. Additionally, all students may not have access to varying levels of complexity, as the materials are adaptive and become more complex the more successful the student becomes.

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

Formative assessments in the materials include "Quizzes" and Checkpoints, which offer a variety of TEKS-aligned questions at more than two levels of complexity. "Quizzes," for example, provide a bank of questions for teachers to create custom formative assessments. The question bank offers multiple TEKS-aligned items that increase in rigor depending on student performance or teacher selection.

Materials include formative assessments featuring a variety of task types and question formats. For example, in the "Texas Essential Knowledge and Skills (TEKS): Geometry" section under "Learning Math

Skills," the "Equations of Parallel and Perpendicular Lines" lesson includes one text entry question and one equation editor question.

2.2 Data Analysis and Progress Monitoring

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.2a	Materials do not include a rationale for each correct, or incorrect, response.	1/3
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	5/7

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

Materials provide teachers with assessment scoring information for individual students. The My IXL "Diagnostic" teacher page offers "A Guide to Understanding the Diagnostic Action Plan," which provides guidance for interpreting the "Levels," "Overall Strand Level," and "Recommendations" for each student to support instructional decision-making.

While the materials provide correct procedural steps as explanations for incorrect answers on the student-facing side, they do not include rationales for any correct or incorrect responses.

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

IXL Math provides administrators and teachers with an IXL "LevelUp Diagnostic" assessment. This diagnostic assessment is an adaptive assessment tool that administrators can set up at the beginning of the school year to assess students' math knowledge. As students take this assessment, students and teachers are provided with a personalized action plan that allows teachers to respond to student trends in performance by identifying the skills and lessons where students have not yet reached proficiency. Students continue ongoing assessment by answering an additional 10–15 questions per week, which keeps their proficiency levels up to date and updates each student's personalized action plan.

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

Materials include a "Diagnostic Action Plan" for teachers that tracks individual student assessment data in visual reports, highlighting areas of progress, growth, and recommended support. The "Progress and Improvement" report allows educators to track each student's progress and growth toward proficiency and mastery of concepts.

Materials include tools for students to track their own progress and growth. For example, in "Math Awards," students monitor their progress using visual growth trackers and progress charts aligned to learning pathways. "Badges" mark learning milestones.

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.

Materials include "Skills," which provide frequent checks for understanding at key points throughout the practice. For example, in the "Skills" practice "H: Congruence transformations," individual "Skills" include questions that provide immediate feedback on student responses, with just-in-time opportunities to correct misunderstandings before proceeding to the next question.

Materials provide frequent checks for understanding at key points throughout each "Lesson." To check for understanding, students complete a set of practice problems. If students demonstrate proficiency, they continue with the lesson. If they do not, the materials provide examples, videos, and explanations to help them understand how to solve the problems correctly.

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	All criteria for guidance met.	4/4
3.1c	Materials do not include explicit educator guidance for enrichment and extension activities.	0/2
3.1d	Materials do not include content, language supports, or calculators that educators can enable or disable to support individual students.	1/3
3.1e	Materials do not 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.	0/2
—	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 lessons or activities scaffolded for students who have not yet reached proficiency in prerequisite or grade-level concepts and skills. In "Analytics," the "Flex Diagnostic Strand Analysis" groups students by skill level, with each group receiving recommended skills for small-group instruction.

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.

"Learn with an Example," in the materials, includes embedded supports and pre-teaching for developing academic vocabulary with the key ideas section that includes definitions, labeling, and color coding. Additionally, the "Get more out of IXL Lessons" videos demonstrate how the materials include embedded supports and pre-teaching for unfamiliar references in text.

Materials include embedded supports for developing academic vocabulary. For example, in the "Skill" practice "P.11 Domain and Range of Polynomials," the accompanying video lesson introduces academic vocabulary and unfamiliar references such as domain and range, interval notation, and polynomial function, to support understanding. However, the materials lack explicit guidance for teachers on how to implement language supports effectively.

Materials include embedded supports for developing academic vocabulary and unfamiliar references. For example, in the Geometry course, the video lesson "Lines, Line Segments, and Rays" introduces vocabulary and unfamiliar references in context. Educators can preview the video, pause to explain concepts, and break down terminology for students. The video also supports foundational understanding by providing practice examples that reinforce newly introduced 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.

Materials do not 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.

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.

The materials do not include content and language supports, and calculators that educators can enable or disable to support individual students.

Text-to-speech, including diagnostic items, can be enabled and disabled for individual students by the educator through the "Extend Audio Supports" tab under Profile & settings.

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.

Materials in this course do not include educator guidance available in other grade levels/courses on offering options and supports for students to demonstrate understanding of mathematical concepts in various ways, such as perform, express, and represent.

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	All criteria for guidance met.	2/2
3.2e	All criteria for guidance met.	2/2
—	TOTAL	12/12

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.

Materials provide direct guidance for educators and students that build knowledge by activating prior knowledge, anchoring big ideas, and highlighting and connecting key patterns, features, and relationships through multiple means of representation within lessons. For example, in the lesson "Trigonometric Ratios," instruction begins by introducing sine, cosine, and tangent using a labeled triangle to visually represent the hypotenuse, opposite, and adjacent sides as a connection to prior knowledge. The lesson presents the ratios symbolically using ratio notation. Building on these patterns, the lesson introduces the reciprocal ratios (cosecant, secant, and cotangent) by connecting sine to cosecant, cosine to secant, and tangent to cotangent. The relationships are reinforced through multiple representations, including the labeled triangle, symbolic notation, and side-by-side graphics comparing each ratio to its reciprocal. This approach activates prior knowledge, anchors the big idea of trigonometric ratios, and highlights the consistent patterns and features of right triangles.

Materials provide guidance for educators and students by highlighting features, patterns, and relationships through multiple means of representation. For example, in the "Skill" practice "U.4 Surface Area of Prisms and Cylinders," students engage with an example involving lateral triangles through a hyperlink. The concept is introduced using both textual and pictorial representations. By clicking on the "surface area" link, students access additional representations, including nets. The instructional sequence begins with a definition, progresses to a labeled pictorial representation, and returns to a net of prisms to reinforce conceptual understanding. No explicit (direct) prompts are present in the materials for educators to build knowledge by activating prior knowledge, anchoring big ideas, or highlighting and connecting key patterns, features, and relationships through multiple means of representation.

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.

Materials include multitiered intervention methods for various types of practice and structures, along with educator guidance to support effective implementation. For example, IXL Math provides real-time reporting of student progress and offers recommendations for intervention through independent practice, guided support, and small-group collaboration. The "Trouble Spots" report displays data across the class and automatically groups students based on the skills associated with missed questions. The educator dashboard includes options such as "Start Group Jam" for small-group intervention and "Suggest this Skill" for targeted independent practice. Additionally, educators can monitor individual student performance through detailed reports that display missed questions, time spent on tasks, and current SmartScores, enabling one-on-one intervention as needed.

Materials include a multitiered approach to intervention that supports various types of practice and instructional structures, along with clear educator guidance for effective implementation. For example, the materials outline a three-tiered intervention model: Tier 1 includes whole-group reteaching of concepts using alternative instructional approaches; Tier 2 provides small-group instruction with targeted practice supported by the "Trouble Spots" feature; and Tier 3 offers individualized, one-on-one practice tailored to specific student needs. Educator resources, including the "Teacher's User Guide," the "Implementation Guide for Supporting Core Curriculum," and a training video, provide detailed guidance on when and how to implement each tier, how to apply the intervention strategies, and how to monitor student progress.

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

Materials include enrichment and extension methods that support various forms of engagement through the "Next Up" feature. Once students demonstrate proficiency in a skill, "Next Up" suggests related enrichment or extension "Skills" to deepen learning. For example, after students demonstrate success with the "Skill" practice "P.2 Prove the Pythagorean Theorem," the adaptive program may recommend "P.4 Pythagorean Inequality Theorems," providing opportunities to apply concepts in more complex situations.

Materials include enrichment and extension methods that support various forms of engagement through "Group Jam" activities. Teachers create these activities by selecting which "Skills" to include and choosing which students to invite. Depending on student ability levels, teachers can review questions with the

group, add new "Skills" for extension, or select more challenging questions within the same concept for enrichment.

Materials include guidance to support educators in effectively implementing enrichment and extension methods in the article titled "What is the Challenge Zone?" This resource explains how the "Challenge Zone" becomes available once students achieve a SmartScore of 90 and describes how these problems serve as the final stretch toward skill mastery.

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

Materials include prompts and guidance to support educators in providing timely feedback during lesson delivery. For example, the platform features a "Questions Log" report that provides a skill summary, including the current SmartScore, number of questions answered, time spent on the skill, and detailed information about each response. The report displays the item question, the correct answer, and the student's response. Educators can customize the display to show only missed questions or hide correct answers to focus solely on student input. Materials include prompts and guidance to support educators in providing timely feedback during lesson delivery. For example, IXL Math includes a "Quiz Analysis" report that displays student responses and skill levels after quiz submission. These features support data-driven instruction by allowing educators to assign targeted practice and assessments based on individual student performance.

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	Materials do not include embedded linguistic accommodations for all levels of language proficiency as defined by the ELPS. Materials do include embedded linguistic accommodations for two levels of language proficiency, as defined by the ELPS.	2/4
3.3c	Materials do not include implementation guidance to support educators in effectively using the materials in state-approved bilingual/ESL programs.	0/1
3.3d	Materials do not include embedded guidance to support emergent bilingual students in building background knowledge or making cross-linguistic connections through oral and written discourse.	4/8
3.3e	This guidance is not applicable to the program.	N/A
—	TOTAL	6/13

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.

Materials do not include embedded linguistic accommodations for all levels of language proficiency as defined by the ELPS.

Materials include embedded linguistic accommodations for two levels of language proficiency as defined by the ELPS. A clickable glossary connects mathematical vocabulary terms with visual representations as appropriate, while a clickable green box provides Spanish translations of key terms. "Lessons" and "Skills"

in the course include built-in visuals for mathematical concepts as appropriate to support connections to academic language.

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.

Materials include some support for educators to promote the development of academic vocabulary and increase comprehension through oral and written discourse. Materials do not include embedded guidance to support emergent bilingual (EB) students in building background knowledge or making cross-linguistic connections through oral and written discourse.

"IXL for Math Discourse" offers guidance for supporting academic vocabulary and increasing comprehension through math discourse in the form of "Individual reflection," "Partner share," and "Class discussion." Materials include prompts such as "Can you use the word ___ in your explanation?," "Did anyone else solve this problem in a different way?," "Whose representation is the most helpful? Why?," and "How could your partner's explanation be clearer?" All of these prompts can be used in either oral discourse or written discourse with peers.

"Spotlight on Vocabulary" offers guidance for developing vocabulary in math discourse and through "Group Jam" reflections and discussions. Prompts for vocabulary include "Is this an example of ___? Why or why not?" and "Can you restate that approach, but use the word ___ in your explanation?"

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	Materials do not include enrichment and extension materials that increase in rigor and complexity, leading to above-grade-level proficiency in the mathematics TEKS.	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.

Instructional assessments embedded throughout learning pathways require students to demonstrate depth of understanding aligned to the TEKS by engaging with questions at varying levels of cognitive complexity. For example, students encounter formative assessment items that require identifying a trigonometric ratio using all three sides of a right triangle, applying the Pythagorean Theorem to determine a missing side, and calculating all three trigonometric ratios by first solving for an unknown side.

Practice opportunities embedded throughout individual lessons require students to demonstrate depth of understanding aligned to the TEKS. For example, in the lesson "Interior Angles of Triangles," the "Try Some Practice Problems" section presents students with tasks that involve finding missing angles in triangles and applying the Triangle Angle Theorem to determine the value of a variable and the measures of one or more angles in a given triangle, aligned to TEKS G.6D.

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.

Materials include questions and tasks that increase in rigor and complexity, leading to grade-level proficiency in the mathematics TEKS. For example, in the "Skills" practice "O.13 Classify shapes on the coordinate plane: justify your answer," students use the distance formula and slopes of parallel and perpendicular lines to classify shapes. If the student does not answer correctly, the step-by-step procedural skills for answering the question correctly are presented, and the student receives a different question for the same skill until the student answers correctly. In addition, "Skills" practices include scaffolded questions and tasks in the "Work it out: Not feeling ready yet? These can help" section below

the given question. To accelerate students to grade-level, the section includes "Classify quadrilaterals," "Slopes of parallel and perpendicular lines," "Midpoints," "Classify triangles," and "Distance formula."

Materials include lessons that support grade-level proficiency in mathematics as outlined by the TEKS. For example, in the lesson "H.1 Classify Transformations," students begin by identifying a single transformation applied to an object on a graph. The level of complexity increases as students progress to questions involving multiple transformations and the sequencing of those transformations.

No evidence of enrichment or extension resources leading to above-grade-level proficiency is present in the materials.

4.2 Coherence of Key Concepts

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.2a	All criteria for guidance met.	1/1
4.2b	Materials do not provide vertical coherence for grades 3–12.	0/1
4.2c	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 the current grade level and future grade levels.	0/4
—	TOTAL	1/6

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

Materials demonstrate coherence across concepts by connecting patterns and relationships. For example, in the "Skills" unit "O: Quadrilaterals," students recognize patterns and relationships within families of quadrilaterals. Activities prompt students to compare side lengths, angle measures, and diagonals to classify quadrilaterals accurately. The materials highlight these geometric connections to reinforce conceptual understanding in "Skills" from "O.1 Identify trapezoids" to "O.13 Proofs involving quadrilaterals."

Materials demonstrate coherence across concepts by integrating foundational ideas related to congruence and transformations. For example, in the "Skills" practice "L.1 Proving that triangles are congruent using rigid motions," students build on prior knowledge of transformations and congruence relationships. The "Skill" includes clickable review content that allows students to revisit concepts such as translations, rotations, and reflections. Students also access support through "Work it out: Not feeling ready yet? These can help," which links to the "Transformations" and "Classify congruence transformations" lessons, where students respond to a quick check on rotation as a congruence transformation.

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

Materials demonstrate vertical coherence across some concepts and grade bands but do not address the full span of grades 3–12.

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.

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 the current grade level and future grade levels.

4.3 Coherence and Variety of Practice

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

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

Materials provide spaced retrieval opportunities with previously learned skills across learning pathways. In the "Solving right triangles" lesson, students are reminded of the use of trigonometric ratios, the Pythagorean theorem, and the Triangle Angle Sum Theorem as ways of solving for missing angles and sides of right triangles.

Materials provide spaced retrieval opportunities with previously learned concepts across learning pathways. For example, the Checkpoint "Q: Right triangle trigonometry" assesses the skills from Q.1 to Q.13, giving students opportunities to recall and apply these skills within an assessment.

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

Materials provide interleaved practice opportunities with previously learned skills across learning pathways. For example, the "Skill" practice "H.12 Sequences of congruent transformations: graph the image" interleaves skills "H.2" through "H.11" on translations, reflections, and rotations on a graph.

Materials provide interleaved practice opportunities with previously learned concepts across learning pathways. For example, the lesson "Congruence" teaches the concept of congruence through topics that include "Congruence transformations," "Congruence notation," and "Triangle congruence."

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	Materials include questions and tasks that provide opportunities for students to interpret, analyze, and evaluate concepts and real-world situations.	3/3
5.1b	All criteria for guidance met.	2/2
5.1c	Questions and tasks do not prompt students to apply conceptual understanding to new situations and contexts.	0/1
—	TOTAL	5/6

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

Materials provide opportunities for students to interpret and analyze mathematical concepts and real-world situations through the progression of lessons and "Skills." For example, after students complete the lesson "Arc length" and the "Skills" practice "W.4 Arc length," they have opportunities to interpret and analyze problems incorporating these concepts in "AA.14 Geometric probability."

Materials provide opportunities for students to evaluate mathematical concepts and real-world situations in assessment Checkpoints. For example, after students complete assigned trigonometry lessons and "Skills," the Checkpoint "Right triangle trigonometry" assessment includes questions that require students to evaluate real-world situations where right triangle trigonometry applies.

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

Materials include questions and tasks that provide opportunities for students to create models of mathematical situations. For example, in the "Skill" practice "B.15 Construct the midpoint or perpendicular bisector of a segment," students complete the construction of the midpoint of segment AB using online tools, such as a compass and ruler, to create their model.

Materials provide opportunities for students to create representations of mathematical situations. For example, in the "Skill" practice "B.8 Construct congruent segments," students are provided with a variety of tools and are required to construct and correctly label a congruent segment.

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

Materials do not include questions and tasks that provide opportunities for students to apply conceptual understanding to new problem situations and contexts. For example, the "Skill" practice "L.9 Proofs involving corresponding parts of congruent triangles" includes questions that require students to complete a "blank" through drop-down selections within a two-column proof. Students do not have the opportunity to write a proof of triangle congruency starting with only the "givens," limiting their opportunity to apply conceptual understanding in different contexts.

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	Materials do not contain guidance to support students in selecting the most efficient approaches when solving 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.

Materials provide tasks that are designed to build the student automaticity necessary to complete grade-level mathematical tasks. For example, in the "Skill" practice "A.7 Truth tables," students determine the validity of conditional statements using truth tables. As students practice, IXL Math provides immediate feedback, such as highlighting errors or offering step-by-step explanations, which supports students in identifying the correct structure and building the automaticity necessary to quickly and accurately classify statements as true or false.

Materials provide tasks that are designed to build the student fluency necessary to complete grade-level mathematical tasks. For example, in the "Distance Formula" lesson, students apply the distance formula to a variety of figures in different problem-solving situations, building fluency in manipulating the formula and applying it in a variety of situations. Students continue to build fluency in the corresponding "Skill" practice "B.13 Distance formula" through a series of practice problems requiring the correct application of the distance formula.

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

Materials provide opportunities for students to practice the application of efficient and accurate mathematical procedures. For example, in section M of "Skills," "Similar figures," students progress through a series of practice activities exploring methods of determining similarity in two-dimensional figures. As students advance through the section, they are expected to apply the most efficient method to determine whether a set of given figures are similar.

Materials provide opportunities for students to practice the application of flexible and accurate mathematical procedures. For example, in the Checkpoint "Rigid motion and congruence," students determine congruence and transformations of rigid polygons on coordinate planes using a variety of procedures, including comparing coordinates of fixed polygons, identifying the transformations that

created a congruent figure, identifying transformations using coordinates or graphical representations, and predicting the new position of a figure based on the named transformation.

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

Materials provide opportunities for students to evaluate mathematical representations, models, strategies, and solutions for efficiency, flexibility, and accuracy throughout learning pathways through the "IXL for Math Discourse, Group Jam Guide." The guide instructs educators on using the "Group Jam" feature, which includes having students work on the same math problem together. Then, the educator has different options in which students participate in math discourse. Students evaluate mathematical representations, models, strategies, and solutions for efficiency in the "Partner share" strategy section, as well as in the "Class discussion" section. In these sections, educators are prompted to ask students questions such as "Whose approach was most efficient? Why?" Students evaluate mathematical representations, models, strategies, and solutions for flexibility in the "Class discussion" strategy section. In this section, educators are prompted to ask students questions such as "Whose approach is the most flexible? Why?" and "Whose approach is the most likely to be accurate? Why?"

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

Materials do not contain guidance to support students in selecting the most efficient approaches when solving mathematical problems. While students have opportunities to choose which method to use when solving problems, the materials do not provide guidance to support selecting the most efficient approach.

5.3 Balance of Conceptual Understanding and Procedural Fluency

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.3a	Materials do not explicitly state how the conceptual and procedural emphases of the TEKS are addressed.	0/2
5.3b	Materials do not include questions and tasks that provide opportunities for students to use concrete models as required by the TEKS. Materials do include questions and tasks that provide opportunities for students to use pictorial representations, and abstract models as required by the TEKS.	2/3
5.3c	Materials do not include supports for students in connecting, creating, defining, and explaining concrete models to abstract concepts as required by the TEKS; materials do include supports for students in connecting, creating, defining, and explaining representational models to abstract concepts as required by the TEKS.	3/6
—	TOTAL	5/11

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

Materials do not explicitly state how the conceptual or procedural emphasis of the TEKS is addressed. While the "Texas Essential Knowledge and Skills (TEKS): Geometry Skill Plan" lists which IXL Math "Skills" align to each TEKS, no explicit explanation of why or how conceptual understanding supports the procedural emphasis of the TEKS is provided.

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

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

Materials provide questions and tasks that include pictorial representations and abstract models, as required by the TEKS. For example, in the lesson "Nets," students explore the relationship between two-dimensional patterns and their corresponding three-dimensional shapes. The lesson begins with pictorial representations of nets and solid figures to help students visualize geometric relationships. Students identify how folded nets form three-dimensional shapes, then apply area formulas to calculate surface area, connecting visual and spatial reasoning to numeric and symbolic expressions.

Materials provide questions and tasks that include pictorial representations and abstract models, as required by the TEKS. For example, in the Geometry "Skills" practice "M.5 Similar Triangles and Indirect Measurement," the "Learn with an example" activity integrates pictorial and abstract models. Students begin with pictorial models of similar figures and learn that similar triangles are proportional. Students

then set up and solve proportions using symbolic notation, connecting pictorial models to abstract equations.

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.

Materials do not include supports for students in connecting, creating, defining, and explaining concrete models to abstract concepts, as required by the TEKS.

Materials include supports for students in connecting representational models to abstract concepts. For example, in the lesson "The Pythagorean Theorem," students use visual diagrams of right triangles to understand the relationship between side lengths. The "Learn with an example" feature guides students in translating these visual models into abstract notation, such as $a^2 + b^2 = c^2$, reinforcing connections between geometric representations and abstract notation.

Materials include supports for students in creating representational models of abstract concepts. For example, in the "Transformations" lesson, students create coordinate plane diagrams to model translations, reflections, and rotations of geometric figures. Tasks prompt students to draw and label figures before applying rules for each transformation to describe and apply transformations algebraically.

Materials include supports for students in defining and explaining representational models to abstract concepts. For example, in "The Pythagorean Theorem," students explain how squaring and summing side lengths represents the relationship between a triangle's sides. In the "Practice" section, students justify whether a triangle is a right triangle by referring to both their visual model and the corresponding equation.

5.4 Development of Academic Mathematical Language

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.4a	All criteria for guidance met.	1/1
5.4b	Materials do not include embedded educator guidance to extend students' use of academic mathematical vocabulary in context when communicating with peers and educators.	1/2
5.4c	All criteria for guidance met.	1/1
5.4d	All criteria for guidance met.	2/2
5.4e	Materials do not include embedded guidance to anticipate a variety of student answers, including exemplar responses to questions and tasks, and including guidance to support and/or redirect inaccurate student responses.	0/2
—	TOTAL	5/8

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

Materials provide opportunities for students to develop academic mathematical language using visuals and notation. For example, in the lesson "Properties of parallelograms," each property is paired with a visual representation and mathematical notation to reinforce the associated mathematical language. The property "Opposite sides are congruent" is illustrated with a labeled parallelogram showing single and double tick marks on opposite sides to indicate equal length. Corresponding notation (e.g., $AB \cong CD$ and $AD \cong BC$) is provided alongside the visual to support connections between vocabulary, symbols, and precise language. Materials provide opportunities for students to develop academic mathematical language using visuals, manipulatives, and embedded vocabulary strategies. For example, in the lesson "Measuring angles with a protractor," students receive verbal definitions of key terms, such as *angle* and *protractor*, and apply this vocabulary while using a manipulative tool to measure angles. The materials guide students through academic instructions such as "place the center of the protractor on the vertex" and "line up with a ray," reinforcing precise language use during hands-on tasks. Visual cues and modeled steps support understanding of terms like *vertex*, *ray*, *obtuse*, and *acute*, while strategies such as "opening left or right" help students apply directional reasoning as they engage with measurement concepts.

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.

Materials include embedded educator guidance to scaffold and support students' use of academic mathematical vocabulary in context when communicating with peers and educators through the "IXL for Math Discourse, Group Jam Guide." The guide provides a section titled "Spotlight on vocabulary" that

guides educators on how to use IXL Math's video tutorials. For example, the guide instructs educators on how they can introduce new vocabulary using video tutorials, stating that students can either watch the video as a class or independently. Once students have watched the video tutorials, the guide suggests students record their new vocabulary by "writing and drawing the meaning of each word," or educators can record new vocabulary on a classroom vocabulary chart. The guide continues with having educators regularly incorporate their new vocabulary in their "Group Jam" reflections and discussions. The guide provides educators with prompts to continue supporting students' use of vocabulary, such as "Can anyone remind us what ____ means?," "What is the ____ in the problem?," "Is this an example of ____? Why or why not?," and "Can you restate that approach, but use the word ____ in your explanation?"

IXL "Skills" and lessons include embedded keywords hyperlinked to definitions and video explanations that educators and students can access as needed.

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

Materials include embedded guidance to support student application of appropriate mathematical language and academic vocabulary in discourse through the "IXL for Math Discourse, Group Jam Guide." The guide provides educators with different options for discourse, such as "Partner share" and "Class discussion" with provided prompts. The guide supports student application of appropriate mathematical language and academic vocabulary with prompts in the "Class discussion" section that include "Can you use the word ____ in your explanation?" At the end of the guide, there is a section specific to using "Group Jams" to support application of appropriate mathematical language and academic vocabulary in discourse. This section provides educators with prompts to continue supporting students' use of vocabulary, such as "Can anyone remind us what ____ means?," "What is the ____ in the problem?," "Is this an example of ____? Why or why not?," and "Can you restate that approach, but use the word ____ in your explanation?"

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

Materials include embedded guidance to facilitate mathematical conversations, allowing students to hear, refine, and use mathematical language with peers in the "IXL for Math Discourse, Group Jam Guide." The guide provides educators with different options for mathematical conversations with peers in sections such as "Partner share" and "Class discussion" with provided prompts. The prompts provided in these sections help facilitate mathematical conversations, allowing students to hear, refine, and use math language with peers. Prompts include questions like, "Can you use the word ____ in your explanation?" At the end of the guide, there is a section specific to using "Group Jams" to facilitate mathematical conversations with peers. This section provides educators with prompts such as "Can anyone remind us what ____ means?," "What is the ____ in the problem?," "Is this an example of ____? Why or why not?," and "Can you restate that approach, but use the word ____ in your explanation?"

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.

Materials do not 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.

5.5 Process Standards Connection

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.5a	All criteria for guidance met.	1/1
5.5b	Materials do not include a description of how process standards are incorporated and connected through 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.

Materials include TEKS process standards that are integrated appropriately into the materials. The "Texas Essential Knowledge and Skills (TEKS): Geometry Skill Plan" provides a list of skills that correspond to each of the process standards. For example, the "Skill" practice "A.1 Identify hypothesis and conclusions" is aligned with process standard G.1G, which supports students in justifying and explaining mathematical reasoning. Materials provide multiple opportunities for students to engage with process standards G.1A–G. Lessons and activities prompt students to communicate mathematical ideas and reasoning using multiple representations, including visual models, symbolic notation, and verbal explanations. Materials also include tasks that require students to apply mathematics to real-world situations.

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

Materials do not include a description of how process standards are incorporated throughout the learning pathways. While materials include a list of process standards and corresponding practice "Skills" aligned with them, no evidence shows how process standards are connected throughout the learning pathways. For example, although the "Implementation Guide for Standards Prep" includes an overview YouTube video titled "IXL for Standards Prep," the video references only "California Common Core Content Standards Math" and does not contain any reference to or alignment with the TEKS. Although "Recommended Skills Pathways" indicate how students revisit standards over time, the materials do not clarify where or how process standards are addressed within the progression of skills. Additionally, while the "Skills Plan" lists activities aligned to specific process standards, this information is not integrated within student learning pathways or lesson content. Additionally, the materials do not describe how process standards are connected across lessons or skill progressions, resulting in a lack of coherence throughout the learning pathways.

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

Materials do not include an overview of the TEKS process standards incorporated into each lesson.

Materials include an overview of the TEKS process standards incorporated into each "Skill." The "Texas Essential Knowledge and Skills (TEKS): Geometry" provides a course-specific list that aligns each process standard with a set of corresponding "Skills" organized by standard.

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	All criteria for guidance met.	3/3
—	TOTAL	9/9

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

Materials provide opportunities for students to think mathematically through the use of "Skills." For example, the "Skill" practice "Analyze properties of geometric figures" requires students to think mathematically by examining relationships among angles, sides, and symmetry. This helps students understand how these properties affect the classification and characteristics of figures.

Materials provide opportunities for students to persevere through solving problems and to make sense of mathematics. Scaffolds are embedded to guide students as they work through problems. For example, in the Geometry "Skill" practice "B.13 Distance formula," the materials help students make sense of mathematics by deriving the formula from the Pythagorean Theorem and demonstrating its use through guided steps and explanations. Tasks increase in difficulty, progressing from two-dimensional applications to three-dimensional distance problems, allowing students to persevere through problem solving.

Materials provide opportunities for students to persevere through solving problems and to make sense of mathematics. For example, in the "Skills" practice "AA.11 Find conditional probabilities," questions gradually increase in difficulty, supporting student perseverance through solving problems.

Materials provide opportunities for students to make sense of mathematical concepts. The Geometry "Skill" practice "N Properties of triangles" provides opportunities to attempt different strategies while working with and proving different properties of triangles, thus requiring students to make sense of mathematics while progressing through the learning pathway.

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

IXL provides opportunities for students to think mathematically, persevere through solving math problems, and make sense of mathematics. The "IXL For Math Discourse" includes teacher prompts and

reflection questions for students to self-reflect or discuss with peers. For example, prompts include questions such as "How did you solve this problem?," "Did you and your partner solve the problem in different ways?," "How would you convince someone who used a different method that your solution is correct?," and "Read your partner's written reflection. What parts do you understand? What do you have questions about?"

Materials support students in understanding that there are multiple ways to solve problems; they do not provide opportunities for them to explain or justify multiple solution paths for solving problems or completing tasks. The "Learn with an example" embedded videos and detailed explanations for incorrect responses present multiple ways for students to arrive at a solution. Materials demonstrate various approaches to writing and solving equations using diagrams and word problems, but there is no opportunity for students to articulate different methods or solution paths. For example, in "Solve a System of Equations Using Any Method: Word Problems," embedded videos encourage students to use substitution, elimination, or graphing to solve the problem. Embedded videos explain and justify that there can be multiple ways to solve problems and complete tasks.

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.

Materials provide opportunities for students to make sense of mathematics through multiple opportunities to do math and discuss their thinking with peers and educators, such as in the IXL Math "Group Jam" feature. However, the educator is responsible for creating and facilitating these opportunities for doing and discussing math in a "Group Jam," as indicated by IXL's guidance for effective "Group Jam" use.

Materials are designed to require students to make sense of mathematics through multiple opportunities for students to write about math with peers and/or educators through "IXL for Math Discourse, Group Jam Guide." This guide provides educators with three different strategies to incorporate written math discourse, such as "Individual reflection," "Partner share," and "Class discussion." Within each of these strategies, educators are provided with prompts that require students to reflect on their learning. For example, in the "Individual reflection" strategy, prompts include, "How did you solve this problem?," "How do you know your approach worked?," and "What connections do you see between this problem and what you have previously learned?"

6.2 Facilitating Productive Struggle

GUIDANCE	SCORE SUMMARY	RAW SCORE
6.2a	All criteria for guidance met.	8/8
6.2b	Materials do not include prompts and guidance to support educators in providing explanatory feedback based on anticipated misconceptions. Materials do include prompts and guidance to support educators in providing explanatory feedback based on student responses.	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.

Materials support educators in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, justifications, and multiple points of entry, through the "IXL for Math Discourse, Group Jam Guide." This guide provides educators with three strategies for students to share and reflect on their problem-solving approaches, including "Individual reflection," "Partner share," and "Class discussion." Each of these strategies include prompts for educators that require students to explain, argue, justify, and reflect on multiple points of entry. For example, in the "Individual reflection" strategy, prompts include "Could you have started solving this problem in a different way?," "How would you justify each step of your approach?," and "Why did you choose this approach?" Prompts in the "Partner share" strategy include "What did you learn from your partner's approach?" and "Can you think of a third way to solve this problem? A fourth?" The "Class discussion" strategy includes prompts such as "Why do multiple ways of solving this problem work?" and "Can you convince the class your solution is correct?"

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

Materials do not include prompts and guidance to support educators in providing explanatory feedback based on anticipated misconceptions.

Materials include guidance to support educators in providing explanatory feedback based on student responses. For example, for incorrect responses in the "Skill" practice "O.5 Graph quadrilaterals," the materials give students explanatory feedback with step-by-step instructions to produce the correct solution.

Additionally, educators monitor skills performance through "Analytics" by viewing "Trouble spots" or "Skills" to review questions attempted along with incorrect responses with recommended continued skills practice as provided feedback.

While "Group Jam" is a resource for educators, there is no guidance to support educators in providing explanatory feedback based on student responses and anticipated misconceptions.