IXL Learning, Inc.

Supplemental English Mathematics, Algebra I

IXL Math Algebra 1

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%	181	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)	4	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 to the ELPS, and no rationale for the learning paths across grade levels or within the same grade level is present. Materials include an alignment guide that outlines the TEKS and concepts covered.	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 protocols with corresponding guidance for unit internalization, but do provide protocols and guidance for lesson internalization.	1/2
1.1e	All criteria for guidance met.	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 "Skill Plans," which align IXL "Skills" to the Algebra I Texas Essential Knowledge and Skills (TEKS). Skills provide practice problems that cover each TEKS, along with a Checkpoint for students, which provides an adaptive practice that addresses multiple TEKS.

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

The Implementation Guides are 13 targeted guides that provide comprehensive guidance to support educators in integrating the platform into multiple instructional contexts. Specific guides are provided for topics such as daily instruction, personalized practice, core curriculum alignment, diagnostic assessments, unit checkpoints, and IEP progress monitoring.

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

The "Student Score Chart" gives each student a proficiency level by domain, identifying where the student is ready to start practicing. Based on the diagnostic, IXL Math recommends specific TEKS-aligned skills that match the student's current level as recommended entry points. Educators can manually adjust these entry points as needed, per rubric expectations.

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

The "Implementation Guide for Daily Instruction" provides educator support for using IXL Math to deliver lessons and check for understanding, but does not include guidance for unit internalization.

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

The "Implementation Guide for Administrators" shows administrators how teachers can use materials to deliver lessons and check for understanding.

The "Implementation Guide for Administrators" provides administrators with steps to support successful implementation by setting up a benchmark, using the benchmark insights for planning and instruction, and checking progress by setting up midyear and end-of-year benchmarks.

1.2 Lesson-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.2a	This guidance is not applicable to the program.	N/A
1.2b	IXL Math does not meet the expectations for detailed overviews, lesson structure, or ELPS alignment; it lacks the educator-facing documentation and instructional guidance. The materials provide TEKS-aligned adaptive assessments that offer educators real-time insights into student performance, allowing educators to quickly pinpoint areas where students face difficulties and adjust their teaching strategies or provide extra resources, as necessary.	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.

The "IXL Analytics Information—Student Score Chart" provides teachers and families with an overview of student progress over multiple concepts, and where student progress falls within each concept. Students have an overview percentage of mastery—proficient, practiced, and no practice—with a concept breakdown throughout the Score Chart. The materials do not include detailed lesson overviews with learning objectives, and there are no lesson components with suggested time frames. No English Language Proficiency Standards (ELPS) resources are provided.

The "IXL Design Principles" provide information about real-time diagnostics and personalized guidance that reference adaptive assessments.

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 contain support for families in Spanish and English with suggestions on supporting the progress of their student(s). For example, IXL Math provides a "Family Guide for Getting Started" in English and Spanish. This guide contains different sections for using IXL Math. A section guides families on what students should do daily, including practicing listed skills and aiming for a SmartScore of 80. The

following section includes guidance on choosing learning plans that can be connected to the content learned in their classroom, or that aid students on national exams such as the ACT and SAT. The next section guides families through IXL Math's recommended skills based on what students have been working on. The section after that includes guidance on personalized action plans based on their diagnostic levels. Finally, the last section guides monitoring student progress, covering trouble spots, and usage in the IXL Math program.

Materials contain support for families in Spanish and English with suggestions on supporting the progress of their student(s). For example, IXL Math provides a family guide, "Track your child's progress with IXL Analytics," in both English and Spanish. This guide helps families view what students have been working through in the IXL Math program and covers topics such as usage, trouble spots, and a score chart. It helps families understand where their child may be struggling and how to help.

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, such as content and language supports, or calculators that educators can enable or disable to support individual students. Materials include printable versions of digital assessments and accommodations, including text-to-speech, that can be enabled or disabled 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 provide multiple "Implementation Guides" for administrators and teachers, such as the "Implementation Guide for Diagnostic Assessments," "Implementation Guide for Live Assessments," and "Implementation Guide for Unit Assessments," that define each type of instructional assessment, explain the intended purpose of the assessment, and provide guidance for using the results to monitor student growth.

The "Implementation Guide for Administrators" provides step-by-step instructions outlining the intended purpose of "Benchmark" assessments, along with guidance for using the assessment data for planning, instruction, and monitoring student growth.

The "Diagnostic Hub" defines the different types of instructional assessments provided in the materials for administrators, teachers, and students. For example, administrators are given information about "Snapshot Mode," which allows administrators to schedule specific times throughout the year for students to complete their "IXL Diagnostic." Administrators can use the "Diagnostic Levels" report to see if students are on, above, or below grade level, compare student data to national norms, and support individual student growth using "Diagnostic Action Plans," which IXL Math generates based on a student's "Snapshot" performance. Teachers receive guidance on using "Diagnostic Action Plans" to support students in making meaningful progress and filling knowledge gaps.

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

In addition to the "Implementation Guides," there are five guides for both administrators and teachers to ensure consistent and accurate administration of instructional assessments. Other guides include "IXL LevelUp Assessment in Real-Time Mode," "IXL Diagnostics in Real-Time Mode," and "IXL for Diagnostic Assessments." Administrator guides include IXL Math's "Diagnostics Snapshot" and "Real-Time Diagnostics." Each guide offers step-by-step instructions for getting students and teachers started with the assessments and includes screenshots to promote consistent, accurate administration.

The "Implementation Guide for Unit Assessment" is a step-by-step guide that walks educators through the use of Checkpoints, which are end-of-unit assessments that require higher-order thinking. The guide provides written instructions and screenshots to ensure consistency and accuracy in administering the assessment.

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 "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 any other assessment provided in the materials. No evidence of content and language supports, calculators, or other accommodations that educators can enable or disable for individual students is present in the materials. 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.

IXL Math includes an "IXL Diagnostic" assessment with TEKS-aligned tasks and questions, including interactive item types with varying levels of complexity. Within the diagnostic assessment, students are presented with a range of TEKS-aligned questions that increase in complexity as they are answered correctly. Students are provided questions that include basic recall, reasoning, analysis, and evaluation. The questions presented in the diagnostic assessment vary in item types, and students can expect to see multiple-choice questions, graphing, and text entry.

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

In Algebra I, IXL Math provides multiple TEKS-aligned formative assessment opportunities embedded in "Skills" practice, as well as Checkpoints. These assessments include questions with varying levels of complexity. For example, in Algebra I, the skill "M.4 Identify functions" begins with basic input-output table identification, moves to symbolic and graphical matching tasks, and finishes with justification tasks requiring conceptual explanation. These formative tasks generate actionable data for teachers through the "Live Classroom" and "Analytics" tabs, supporting real-time instructional adjustments.

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. Materials do include instructional assessments with scoring information, and guidance for interpreting student performance.	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.

IXL Math's "Flex Diagnostics Overview" includes scoring information from the "IXL Diagnostic Assessment." These scores provide teachers with graphical representations of individual student performance as well as whole-class performance. By selecting an individual student, teachers are provided with an "IXL Flex Diagnostic Action Plan," which offers recommendations on which skills students need more practice with. The "IXL Diagnostic Action Plan Guide" provides guidance for teachers on interpreting student performance.

IXL Math's "Skill Analysis" is a report where teachers can select specific skills assigned in class and see how individual students performed on these skills. Within the analysis, teachers can view which students have mastered a skill and which students are working on a skill but have not yet reached mastery. The "Skill Analysis" also includes a "Trouble Spots" section that identifies question types a student has missed three times within a skill. Teachers can open a linked page from the "Trouble Spots" section with guidance on how to interpret student performance.

While the materials provide correct procedural steps as explanations for incorrect answers on the student-facing side, no rationales for any correct or incorrect responses are included.

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.

The materials include a "Progress and Growth" section for teachers with tools for tracking both individual student and overall class progress. For example, the "Student" section provides data on both "Skill Progress" and "Assessment Growth." "Skill Progress" allows teachers to evaluate individual student progress and growth by tracking real-time data such as "Skills Practiced," "Skills Proficient," and "Skills Mastered," as well as the total number of questions answered by the student. The "Assessment Growth" tool allows teachers to assess individual student progress and growth by tracking the starting level, current level, and growth of each student based on the results of the "LevelUp Diagnostic" and "Flex Diagnostic."

The "IXL LevelUp Diagnostics Overview" report for administrators provides a high-level overview of student performance and compares annual growth between two assessment windows. Teachers can use this report to identify students' levels and determine if intervention may be needed. Levels are broken down by above grade level, on grade level, below grade level, far below grade level, and not yet pinpointed.

The Student Summary page is a place where students can track their own progress and growth. This page is broken down into two sections: "Accomplishments" and "Areas to Focus On." In the "Accomplishments" section, students can hover over icons like "Ribbons" and "Trophies" that tell students whether they are proficient in a skill or have mastered a skill. The "Areas to Focus On" section provides students a list of recommended skills for practice and a count of how many questions have been missed so far for a given "Skill."

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.

IXL Math includes "Skills" that provide students with practice opportunities on specific concepts and immediate feedback. Each "Skills" practice offers frequent checks for understanding and adapts based on correct or incorrect responses. The level of rigor increases as students demonstrate proficiency, while students who do not show proficiency receive targeted recommendations.

The materials include lessons, which provide frequent checks for understanding at key points throughout each one. For example, in Algebra I, the "Writing Algebraic Expressions" lesson begins by introducing important vocabulary, examples of expressions, and a table that connects keywords to algebraic expressions. To check for understanding, students complete a set of practice problems. If the student demonstrates proficiency, they continue with the lesson. If they do not, the materials provide examples, videos, and explanations to help students 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 for students who have demonstrated proficiency in grade-level and above-grade-level content and skills.	0/2
3.1d	Materials do not include accommodations, including content and language supports or calculators, to support individual students.	1/3
3.1e	Materials do not include educator guidance for offering options and supports for students to demonstrate understanding of mathematical concepts in various ways.	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.

Materials include explicit educator guidance for language supports, including pre-teaching and embedded supports for developing academic vocabulary and unfamiliar references in text through the "Learn with an Example" video. Additionally, the "Get More out of IXL Lessons" video demonstrates how the materials include embedded supports and pre-teaching for unfamiliar references in text.

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. While there are Geometry, Algebra II, Pre-Calculus, and Calculus lessons available in the product, there is no explicit educator guidance explaining how to use those enrichment or extension lessons.

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.

Materials include the accommodation of text-to-speech that educators can enable or disable to support individual students under "Profile & settings."

Materials do not include the ability to enable or disable content and language supports, nor calculators 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.

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 include direct guidance for educators and students to build knowledge by activating prior knowledge, anchoring big ideas, and highlighting and connecting key patterns, features, and relationships through multiple means of representation. For example, in the Algebra I lesson "Linear functions," the materials connect the process for writing linear functions to writing linear equations in slope-intercept form, activating prior knowledge to support new learning. In addition, graphical representations of functions highlight and connect key patterns across multiple representations. Materials include direct guidance for educators and students that highlight and connect key patterns, features, and relationships through multiple means of representation. For example, the video lesson for "Skill" practice "W.10 Multiply polynomials using area models" demonstrates how the area model used to multiply integers in previous grade levels can be applied to multiplying polynomials. No explicit direct prompts 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 are present in the materials.

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 through "Work it out" recommendations located under each "Skill." These recommendations provide students with practice opportunities by suggesting prerequisite "Skills" for additional reinforcement and by recommending lessons that guide students step-by-step through each mathematical concept.

Materials include multitiered intervention methods for various types of structures through "Group Jam" activities. Teachers create these activities by selecting specific "Skills" to include and choosing which students to invite. This feature provides opportunities for whole-group sessions to support full-class reteaching, as well as small-group sessions for more targeted intervention.

Materials include educator guidance for implementing multitiered intervention methods in the "IXL for Supporting Core Curriculum" guide. This resource provides step-by-step instructions for applying intervention strategies, such as using "Explanations" to model whole-class instruction and having students work independently or in small groups to complete targeted "Skills."

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 "L.6 Slope-intercept form: write an equation," the adaptive program may recommend "L.19 Write an equation for a parallel or perpendicular line," 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 guidance to support educators in providing timely feedback during lesson delivery through the "IXL for Live Assessments" guide. For example, educators select which "Skill(s)" they want students to work on and monitor progress through the "Live Classroom" screen. Student names appear in color-coded tiles that update in real time based on performance. The guide provides educator guidance for using embedded communication tools to respond to students in real time when a tile indicates a need for support.

Materials include prompts to support educators in providing timely feedback during lesson delivery through "Group Jams." Educators initiate a "Group Jam" by selecting a specific "Skill" and inviting students to participate. As students work, educators view their responses in real time and receive prompts that include clarification strategies and explanations. These supports help educators address misconceptions, guide student thinking, and provide immediate feedback during instruction.

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 and 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 embedded guidance to support emergent bilingual (EB) students in developing academic vocabulary and increasing comprehension through oral and written discourse through "IXL for Math Discourse, Group Jam Guide." This guide provides educators with different strategies to incorporate math discourse, both written and oral, in the classroom. The three strategies provided include "Individual reflection," "Partner share," and "Class discussion." Prompts vary in each of these sections, but include reflection questions such as "Why did you choose this approach?," "What connections do you see between this problem and what you have previously learned?," "Did you and your partner start the problem in a different way?," "How could your partner's explanation be clearer?," "Can you use the word ____ in your explanation?," and "Why does your approach work?" All of these prompts can be used in either oral discourse or written discourse with peers.

While materials provide some features such as text-to-speech and translation support, these features do not support EB students in building background knowledge and making cross-linguistic connections 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	Materials do not include enrichment or 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.

IXL Math provides practice opportunities called "Skills," individual topics that provide students multiple opportunities to practice mathematics problems on a specific concept. These practice problems increase in depth and complexity each time a student answers a question correctly, and provide the correct procedural steps for questions answered incorrectly. For example, students can choose to work on solving one-step equations in the "Skill" practice "C.7 Solve one-step linear equations," and practice problems provided in the "Skill" are limited to solving one-step linear equations. However, within the "Skill," questions increase in rigor as students demonstrate proficiency with lower-level questions.

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.

IXL Math provides "Skills" for students that are adaptive and allow students to practice specific TEKS-aligned skills. Because "Skills" are adaptive, they increase in rigor and complexity as students demonstrate proficiency, leading to grade-level proficiency in the TEKS.

The materials do not provide evidence of enrichment or extension resources that increase in rigor and complexity beyond grade level; tasks remain limited to grade-level proficiency and do not support above-grade-level proficiency in the TEKS.

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.

IXL Math's "Skills" demonstrate horizontal coherence across concepts by connecting patterns, big ideas, and relationships. For example, in Algebra I, the "Skill" practice "C.10 Solving linear equations" is later applied in "Skills" practices such as "O.8 Solving systems of equations using substitution," allowing students to build on their understanding of related concepts. Each "Skills" practice includes a "Work It Out" section that helps students review prior skills and connect them to the current skill.

IXL Math provides students with lessons that demonstrate horizontal coherence across concepts within the grade band by including practice sets connected to grade-level ideas. For example, in Algebra I, the lesson "Completing the square" introduces important vocabulary with links to earlier lessons, such as quadratic equations, factors, and quadratic functions. Students then learn what completing the square means and see the process demonstrated visually with algebra tiles. The lesson provides examples showing how to find the value of *c* and includes practice problems for students to apply this skill. Finally, students receive examples and explanations for completing the square mathematically, followed by a second set of practice problems to reinforce the concept.

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 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.

IXL Math provides spaced retrieval opportunities with previously learned skills and concepts through "Skills" practices. For example, students who learn to solve linear equations early in the course in the "Skill" practice "C.10 Solving multi-step linear equations" encounter these skills again when practicing systems of equations in "L.9 Write linear equations in standard form" and "O.8 Solving systems of equations using substitution."

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

In Algebra I, teachers can assign students Checkpoints, which are end-of-unit, interleaved practice opportunities that combine previously learned skills and concepts. For example, when students complete practice within the quadratics unit in IXL Math, they practice individual skills in "Skills" such as "Z.3 Solving quadratic equations by factoring" and "Z.4 Completing the square." At the end of the unit, teachers assign the Checkpoint "Quadratic equations," where all the individual unit skills are assessed comprehensively.

"Quizzes" are a resource teachers can use to create interleaved practice opportunities with previously learned skills and concepts. Teachers can build a quiz using any Algebra I skill available in IXL Math and select the desired level of difficulty. This allows students to practice multiple previously learned concepts in a single session.

5. Balance of Conceptual and Procedural Understanding

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

5.1 Development of Conceptual Understanding

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.1a	All criteria for guidance met.	3/3
5.1b	Materials do not include opportunities for students to create concrete models of mathematical situations. Materials include opportunities for students to create representations for mathematical situations.	1/2
5.1c	All criteria for guidance met.	1/1
—	**TOTAL**	5/6

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

IXL Math provides questions and tasks that allow students to interpret, analyze, and evaluate mathematical concepts through "Skills." For example, in the "Skill" practice "N.5 Interpret the slope and y-intercept of a linear function," students analyze a real-world linear function and its graph to interpret the slope.

IXL Math allows teachers to create quizzes that include questions and tasks that provide opportunities for students to interpret, analyze, and evaluate mathematical situations. Teachers create a quiz by selecting any grade level, skill, and difficulty level. For example, in the "Skill" practice "P.1 Does (x,y) satisfy the inequality?" students evaluate whether a given coordinate satisfies an inequality.

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

IXL Math provides questions and tasks in "Skills" where students create representations of mathematical situations; for example, in "P.3 Graph a two-variable linear inequality," students create a graph from a given two-variable inequality. Students build the graph by selecting either a solid or dotted line, then placing the shaded region to represent the inequality.

Materials do not include questions and tasks that provide opportunities for students to create models of mathematical situations.

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

IXL Math provides questions and tasks for students to apply conceptual understanding to new situations and contexts through "Skills." For example, in "O.15 Solve a system of equations using any method: word

problems," students use their understanding of solving systems of equations to solve real-world problems.

Teachers can create "Quizzes" in IXL Math that incorporate "Skills" with questions and tasks, providing opportunities for students to apply conceptual understanding to new situations and contexts. For example, in the "Skill" practice "C.15 Create linear equations with no solutions or infinitely many solutions," students complete a partially constructed equation by adding terms that result in either no solution or infinitely many solutions. To do this, students apply their understanding that an equation with no solution simplifies to a false statement, while an equation with infinitely many solutions simplifies to a true statement.

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 mathematical 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 student automaticity necessary to complete grade-level mathematical tasks. For example, "Skills" repeat mathematical concepts and adapt to student performance. If students are not proficient, the "Skill" directs them to prerequisite "Skills," provides videos that model correct procedures, or offers lessons to reteach the concept. When students answer incorrectly, the "Skill" displays an explanation of the correct solution. As students demonstrate proficiency, the tasks adapt to increase in rigor and complexity, supporting the development of automaticity through repeated, targeted practice. Materials provide tasks that are designed to build the student fluency necessary to complete grade-level mathematical tasks. For example, teacher-created "Quizzes" allow educators to select the "Skills," set the number of questions, and determine the difficulty level for each item. As students engage with these quizzes, they build fluency by practicing efficient and accurate methods to solve problems, applying strategies flexibly across a range of skill levels.

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, flexible, and accurate mathematical procedures in "Skills." For example, in the "Skill" practice "C.7 Solve one-step linear equations," students begin by applying basic procedures efficiently and accurately. The materials build on this foundation in "C.10 Solve multi-step linear equations," where students use increasingly complex and flexible strategies to solve equations.

Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures through Checkpoints, a feature at the end of many "Skills" sets in the Algebra I course. For example, in the skill set "W. Polynomials," students first practice individual "Skills" such as "W.4 Add and subtract polynomials," "W.8 Multiply two binomials," and "W.13 Divide polynomials by binomials." At the end of the set, the Checkpoint "Polynomial operations" requires students to apply all of these skills together, supporting efficiency, flexibility, and accuracy in solving polynomial problems.

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" strategy section. In these sections, educators are prompted to ask students questions such as "Whose approach was most efficient? Why?" In the "Class discussion" strategy section, educators are prompted to ask students questions such as "Whose approach is the most flexible? 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): Algebra 1 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 include questions and tasks that provide opportunities for students to use pictorial representations within "Skills." For example, "Skills" practices "D.2 Volume" and "D.3 Surface Area" provide pictorial representations of three-dimensional solids for students to use in solving volume and surface area problems.

Materials include questions and tasks that provide opportunities for students to use abstract models within "Skills." For example, the "Skills" practice "AA.5 Write linear and exponential functions: word problems" requires students to use numerical symbols, variables, and mathematical notation to formulate equations or mathematical models representing the given word problems. Additionally, the "Skills" practice "O.11 Solve a system of equations using elimination: word problems" requires students to use numerical symbols, such as the equal sign, variables, and mathematical notation, to formulate systems of linear equations to represent given word problems.

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 through "Skills." For example, in the "Skill" practice "V.4 Match exponential functions and graphs II," students connect graphs (representational models) to their corresponding equations (abstract models).

Materials include supports for students in creating representational models to abstract concepts through "Skills." For example, in "AA.6 Write linear and exponential functions from tables," students use tabular representations of linear and exponential functions to create abstract models (linear and exponential functions or equations).

Materials include supports for students in defining and explaining representational models to abstract concepts through "Skills." For example, in "N.5 Interpret the slope and y-intercept of a linear function," students interpret the slope and y-intercept (abstract concepts) using graphs that represent real-world problems.

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 guidance to extend students' use of academic mathematical vocabulary in context when communicating with peers and educators. Materials do include embedded guidance to scaffold and support 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, 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 "Domain and range," domain and range are presented through mapping diagrams, ordered pairs, graphs, and equations, each paired with visual representations and mathematical notation to reinforce the associated mathematical language.

Materials provide opportunities for students to develop academic mathematical language using visuals. For example, in "JJ.3 Match correlation coefficients to scatter plots," students use drag-and-drop features to pair a correlation coefficient with its matching scatter plot, connecting mathematical terms and ideas to visual representations.

Materials provide opportunities for students to develop academic mathematical language through visuals paired with verbal descriptions in videos. For example, in the video "JJ.9 Analyze a regression line of a data set," students watch and listen as verbal definitions are paired with visuals to support connections between academic mathematical language and visual representations.

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 "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 watch the video either 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?"

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 "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. Prompts in the "Class discussion" section 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. 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.

While videos are provided to educators to support using the IXL Math platform, materials do not include embedded guidance to anticipate a variety of student answers, including exemplar responses to questions and tasks, or guidance to support and/or redirect inaccurate student responses. For example, the video "IXL Quick Tip: Learn with an example" highlights the "Learn with an example" feature, a student-facing tool that demonstrates one way to solve a problem. While this feature provides an exemplar response, it does not provide guidance to address a variety of student answers or to redirect inaccurate 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 the TEKS process standards appropriately integrated under the "Texas Essential Knowledge and Skills (TEKS): Algebra 1" Skill Plan. All seven process standards are listed and connected to specific "Skills" links within the platform. For example, process standard A.1A is integrated into the "Skills" practices "C.17 Solve linear equations with variables on both sides: word problems," "N.8 Write a linear function: word problems," "JJ.10 Exponential regression," and 12 others.

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): Algebra 1" 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	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.	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 "Interpret lines of best fit: word problems" requires students to think mathematically by analyzing data to determine the line of best fit and interpreting its meaning within the context of the problem. Materials provide opportunities for students to persevere through problem solving. For example, "Solve a system of equations using any method: word problems" requires students to persevere through multistep processes by selecting and applying appropriate solution methods, such as substitution or elimination, in real-world contexts.

Materials provide opportunities for students to make sense of mathematics through the use of "Skills." For example, the "Skill" practice "N.5 Interpret the slope and y-intercept of a linear function" requires students to make sense of mathematics by understanding the real-world problem mathematically and then making sense of the graph through interpretation of the rate of change in the context of the problem. In addition, "W.2 Model polynomials with algebra tiles" requires students to make sense of mathematics by converting an algebraic tiles representation or model of polynomials into an abstract representation.

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

Materials support students in understanding that there can be multiple ways to solve problems and complete tasks through the use of lessons. For example, in the Algebra I "Systems of equations" lesson, students learn to solve a system of linear equations using three different methods: graphing, substitution, and elimination. Materials support students in understanding that there can be multiple ways to solve problems and complete tasks through videos. For example, the video "O.14 Solve a system

of equations using any method" demonstrates multiple strategies for solving systems of equations and compares them, enabling students to recognize when one approach may be more efficient than another.

Materials support students in explaining and justifying that there can be multiple ways to solve problems and complete tasks through "IXL for Math Discourse." The "IXL for Math Discourse" includes teacher prompts and reflection questions for students to self-reflect or discuss with peers. 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?"

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. For example, the IXL Math "Group Jam" feature allows students to do math collaboratively in real time while discussing math with peers and/or educators. 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 the "IXL for Math Discourse, Group Jam Guide." This guide provides educators with three different strategies to incorporate written math discourse: 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	Materials support educators in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, justifications, and multiple points of entry.	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 student responses in the "Skill" practice "JJ.3 Match correlation coefficients to scatter plots," the materials give students explanatory feedback with step-by-step instructions to produce the correct solution.

While the "Learn with an example" feature provides educators with step-by-step directions for students to correctly complete a problem, there is no guidance for responding based on the actual incorrect student response given.

Additionally, educators may monitor skills performance through "Analytics" by viewing "Trouble spots" or "Skills" to review questions attempted along with student 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.