

Carnegie Learning, Inc.

Supplemental English Mathematics, 8

Texas Supplemental Math Solution Grade 8–Student 1 Year License

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Supplemental	9798896388715	Digital	Adaptive

Rating Overview

TEKS SCORE	TEKS BREAKOUTS ATTEMPTED	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	74	2	Flags Not in Report	Not Applicable	0

Quality Rubric Section

RUBRIC SECTION	RAW SCORE	PERCENTAGE
1. Intentional Instructional Design	10 out of 21	48%
2. Progress Monitoring	14 out of 23	61%
3. Supports for All Learners	11 out of 37	30%
4. Depth and Coherence of Key Concepts	14 out of 16	88%
5. Balance of Conceptual and Procedural Understanding	26 out of 38	68%
6. Productive Struggle	11 out of 21	52%

Breakdown by Suitability Noncompliance and Excellence Categories

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

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

IMRA Quality Report

1. Intentional Instructional Design

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

1.1 Course-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.1a	The materials do not provide a rationale for learning paths within the same grade level; materials do not include an alignment outlining the ELPS.	3/5
1.1b	The materials do not provide an implementation guide with usage recommendations or strategies for effective educator use.	2/3
1.1c	The materials do not include a TEKS correlation guide with recommended skill entry points based on diagnostic assessment results.	0/2
1.1d	The materials do not include protocols with corresponding guidance for unit and lesson internalization.	0/2
1.1e	All criteria for guidance met.	2/2
—	TOTAL	7/14

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

The materials include a guide outlining the Texas Essential Knowledge and Skills (TEKS) covered, found in the "Table of Contents," which shows the TEKS alignment for each lesson and provides an overview.

The materials do not include a rationale for learning paths across grade levels (vertical alignment).

The materials do not include an alignment guide outlining the English Language Proficiency Standards (ELPS).

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

The materials do not provide an implementation guide with usage recommendations and strategies for effective educator use in various contexts.

The materials provide (program) usage recommendations for adapting to meet student needs in various contexts. Each topic in the course contains a tab that offers strategies and intervention resources for

readiness and re-engagement. The materials include just-in-time support, such as the MATHstream Videos that educators can assign.

The materials include strategies for effective educator practices adapting to a variety (at least two different instructional contexts) of settings, such as just-in-time supports, advanced learning, or as a course. Within each topic in the course, a tab provides strategies and intervention resources for readiness and re-engagement.

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

The materials do not include a guide that shows the TEKS correlation for each module/topic within the "Course Overview" and Course Planning The materials.

The materials do not include information about the diagnostic assessment results and/or points assigned.

The materials do not provide any information about recommended skill entry points or targeted instruction based upon diagnostic assessment results.

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

The materials do not include protocols with corresponding guidance for unit and lesson internalization.

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

The materials provide resources and guidance for instructional leaders to support educators in implementing materials as designed. For example, the *Texas Supplemental Math Overview* provides both resources and guidance to the teachers to support implementing the materials as designed. This overview document provides essential topics centered on how MATHia and MATHstream balance conceptual understanding with procedural fluency, embed process standards, and give teachers actionable, real-time data to personalize instruction and ensure coherence across grade levels. Within this document are TEKS Process Standards Integration, recommended TEKS Entry Points, resources for vertical and horizontal alignment in implementing the designed materials, and lesson internalization.

The *Texas Supplemental Math Overview* provides the educator with a detailed MATHia and MATHstream "Lesson Internalization Planning Form" to fill out, which is a step-by-step form to foster understanding and implementation of the accessible resources as designed.

The "Table of Contents" shows the TEKS alignment for each lesson and provides an overview of which features and strategies are utilized within the program to teach the TEKS. Examples include animations,

classifications, exploration tools, graphing tools, interactive diagrams, interactive worksheets, proofs, solvers, and worked examples.

1.2 Lesson-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.2a	This guidance is not applicable to the program.	N/A
1.2b	The materials do not provide learning objectives or assessment resources aligned to the ELPS.	3/5
1.2c	The materials do not contain support for families in Spanish and English for each unit or suggestions supporting the progress of the students.	0/2
—	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 materials contain "Lesson Overviews" with lesson objectives and assessment resources aligned to TEKS. The "Lesson Overview" and "Topic Overview" provide a detailed breakdown of what will be covered, how it will be assessed, and how the lesson aligns with the TEKS. For example, in Module 1 "Transforming Geometric Objects," the overview details the three topics covered: rigid motion transformation, similarity, and line and angle relationships. The overview also provides the learning objective connection to the TEKS by stating that students will "investigate congruent figures...making and investigating conjectures...learn transformations are mapping on a plane...and rigid motions preserve the size and shape..." Also in Module 1, Topic 1, Lesson 1 "Patty Paper, Patty Paper," the "Lesson Overview" details that students "use patty paper to make observations about figures...determine if figures are the same shape and size...make, investigate, and justify conjectures about congruence."

The materials include lesson components with suggested timeframes. The MATHia Workspaces give educators the median time spent on a given lesson. For example, in MATHia Adaptive Problem-Solving, Module 1, Topic 1, Workspace 1 "Rigid Motions on a Coordinate Plane, Experimenting with Rigid Motions," the materials provide the median time spent on this lesson as 6–16 minutes.

The materials do not provide detailed overviews with learning objectives or assessment resources aligned to the ELPS.

The materials do not provide multiple pathways to support diverse learners, making it difficult to measure understanding for English language learners.

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

Supplemental materials do not provide communication materials for English-speaking or Spanish-speaking families; for example, the materials do not include a letter to be sent home to families in English or Spanish that provides information about the content being learned.

The materials do not offer support for families in English or Spanish for each unit with suggestions or strategies to enhance their student's progress. For example, the materials do not provide activities to be completed at home that reinforce in-class learning, include questions to ask the student, or include strategies to reinforce new learning.

2. Progress Monitoring

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

2.1 Instructional Assessments

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.1a	All criteria for guidance met.	2/2
2.1b	All criteria for guidance met.	2/2
2.1c	The materials do not include printable versions of digital assessments, nor do they provide accommodations such as text-to-speech, content and language supports, or calculators that educators can enable or disable to support individual students.	0/4
2.1d	The materials do not include a diagnostic assessment with TEKS-aligned questions or questions.	0/4
2.1e	All criteria for guidance met.	4/4
—	TOTAL	8/16

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

The materials include assessment reports in the "Data Insights Tab."

The materials define the lesson stream questions (formative) and the dynamic skills practice (summative) in the provided video for teachers and explain when these questions appear in each lesson in the Help Center.

The materials give key differences between the various types of workspaces that the students interact with. The MATHia Reports FAQs define the Concept Builder Workspaces, the Mastery Workspaces, and the intended use of each type of activity. In Concept Builder Workspaces, students engage with various instructional strategies to develop their understanding of math concepts for a set number of problems. In Mastery Workspaces, students engage in self-paced, adaptive instruction to meet their individual needs and deepen their conceptual understanding.

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

The materials include guidance to ensure consistent administration of instructional assessments and teacher actions before and during assessments. For example, the article "Learning through Assessments" states, "before starting a new module, gain insight into student strengths and anticipate student learning by collecting data using the ReadyCheck Assessments and Getting Ready resources at the beginning of each module."

Help Center provides suggestions for preparing the learning environment, facilitating MATHia, and setting clear student expectations.

The materials include guidance to ensure consistent administration of instructional assessments. For example, the section on creating an engaged and productive MATHstream classroom gives suggestions for preparing the learning environment to facilitate MATHstream in the classroom and for managing time.

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.

While digital assessments include features such as text-to-speech, these accommodations are automatically embedded, and educators cannot enable or disable them to support individual student needs or differentiate instruction.

Content language supports, including pop-up definitions and word glossaries for unfamiliar terms, are available to the students automatically and without exception. The educator cannot enable or disable these supports.

The materials do not include printable versions of the digital assessments or workspace questions. Educators must be able to enable or disable the features to support the individual's needs.

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

The materials do not include a diagnostic assessment with TEKS-aligned questions.

The materials do present interactive item types with varying complexity levels; however, materials do not provide these interactive item types within the framework of a diagnostic assessment.

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

The materials include formative assessments with TEKS-aligned questions or tasks. The grade 8 materials include formative assessments within the MATHia Adaptive Pathways and MATHstream Videos, which are TEKS aligned and have varying levels of complexity, including recall, solving, and differentiation.

The materials present interactive item types with varying complexity levels within the workspaces and with varying response types, such as multi-select, fill-in-the-blank, and drop-down questions aligned with the TEKS. For example, in grade 8, in Module 1, Topic 1 "Rigid Motion, Transformations within the MATHia Adaptive Problem-Solving" first question gives students the definition of a translation, and then the knowledge is assessed by using the Explore Tool and then a drop-down box to determine distance and

direction of the transformation. This task and assignment are aligned with the TEKS in this module and provide varying levels of complexity and more than two unique interactive item types.

2.2 Data Analysis and Progress Monitoring

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

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

Materials provide scoring information and guidance for interpreting student performance on MATHstream assessments/assignments. For example, the MATHia Reports in the *Teacher Toolkit* define scores greater than 70 percent as "Proficient," scores between 50 and 70 percent as "Approaching," and scores below 50 percent as "Needs Remediation."

The materials provide rationale for incorrect responses through LiveLab Data Insights, which are called Just-in-Time Hints. The product feature provides in-the-moment feedback to students and educators regarding how students progress through their work, indicates when they have mastered or not mastered a specific skill, and provides insight to the educator when the students require additional support.

The materials do not provide a rationale for correct responses through LiveLab Data Insights.

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

The materials guide the use of included tasks and activities to respond to student trends in assessment performance. For example, materials provide guidance in the "Getting Started: MATHia Class and Student Reports" section on how to respond to student performance trends on MATHia Assessments by describing multiple teacher scenarios and the corresponding data reports to use.

The materials guide educators in responding to student performance within the MATHia Student Reports and Data Insight Portal. Guidance does not focus on specific tasks but does provide guidance on what tasks and activities can be completed for further instructional purposes or to attain mastery.

MATHia Reports indicate if the student has met proficiency or needs remediation for the standards. Grade 8 materials include a LiveLab, which provides in-the-moment feedback to students and educators

regarding how students progress through their work, when they have mastered or not mastered a specific skill, and when they require additional support.

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 provide tools for teachers to track student progress under the "Data Insights Tab." MATHia Reports provide teachers with student progress. Educators can access these reports through a myriad of methods, including the "Contact Support" and "Help Center Tab." An example of this in the grade 8 materials is a "Standards Report" within the *Teacher Toolkit* that details student proficiency on specific standards, alerts educators to standards that need remediation, and guides educators to respond to student trends.

The materials provide tools for students to track their growth and progress. Mathia Homepage provides these student tools, which displays upon login what units need to be completed or are incomplete, and provides suggestions for units to review.

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.

The materials contain embedded workspaces with questions that provide frequent checkpoints throughout each lesson and activity. These various checkpoints offer immediate feedback to the students as they complete the lesson and activity through the use of Coins For Effort upon submission of a problem. For example, in grade 8, Module 1, Topic 1, Lesson 1, the MATHstream Video "Congruent Figures" includes a workspace question that provides feedback to the student as they submit their answer using the Coins For Effort with a simple explanation for correct or incorrect responses.

Frequent checks for understanding assess student comprehension throughout the lesson or activity. These checks address misunderstandings before they become barriers to student learning throughout the materials. Feedback provided upon submission informs students of incorrect work and provides a deeper explanation of correct work by offering the rationale for the correct answer.

3. Supports for All Learners

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

3.1 Differentiation and Scaffolds

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.1a	All criteria for guidance met.	1/1
3.1b	The materials do not include explicit educator guidance for language supports, including pre-teaching supports for developing academic vocabulary, and unfamiliar references in text.	2/4
3.1c	The materials do not include explicit educator guidance for enrichment and extension activities for students that have demonstrated proficiency at or above grade level.	0/2
3.1d	Digital materials do not include accommodations that educators can enable or disable to support individual students.	0/3
3.1e	The materials do not include educator guidance on options and supports for students to demonstrate understanding of mathematical concepts by performance, expression, and representation.	0/2
—	TOTAL	3/12

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.

The materials include explicit educator guidance for lessons or activities scaffolded for students below the prerequisite or grade-level proficiency. For example, MATHia LiveLab helps educators identify struggling students in real time and recommend remediation strategies.

The materials include explicit educator guidance for lessons or activities scaffolded for students below the prerequisite or grade-level proficiency. The materials include adaptive interactive video lessons in MATHstream that educators can assign to provide various learner supports, such as embedded Pauses at specific points to offer students engaging scaffolded learning opportunities, Hints, Answer Passes, and Power-ups.

The online component, MATHia, automatically scaffolds instruction for students who have not yet mastered grade-level concepts and skills.

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

The materials include explicit educator guidance for language support with embedded supports for developing academic vocabulary. For example, the MATHia Glossary, available throughout the software, consists of a comprehensive glossary that defines words, a pictorial representation where possible, and an example for each entry as an embedded support for developing academic vocabulary.

The materials do not provide explicit preteaching support for educators to develop academic vocabulary or to support unfamiliar references in the 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.

The materials do not include explicit educator guidance for enrichment and extension activities for students who have demonstrated proficiency in grade- or above-grade-level content and skills. For example, the materials do not provide general suggestions for educators with specificity, such as, "For advanced learners, provide more challenging problems" or "Encourage students to explore topics further on their own."

The materials do not provide enrichment and extension activities for in-grade-level content and skills, and do not include explicit educator guidance for implementing these activities within the materials. For example, the materials do not include specific prompts for advanced questioning or allow for in-depth content discussions, such as asking students to justify their problem-solving strategies or compare different mathematical approaches.

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 include digital materials that provide text-to-speech accommodations. Educators cannot enable or disable this support for individual students, and materials do not include guidance on how to enable or utilize this built-in feature.

The materials include digital materials that provide content and language support through glossaries and pop-up word definitions. Educators cannot enable or disable this support for individual students or to meet individual student needs. The materials do not guide educators on utilizing the glossary or pop-up word definitions, or how to enable or disable this built-in feature.

The materials provide calculators as accommodations and as a built-in feature. Educators cannot enable or disable the calculator for individual students or to meet individual student needs.

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

The materials offer students options for demonstrating their understanding of mathematical concepts in various ways, such as performance, expression, and representation. For example, in Module 4, Topic 2, Intervention Resources, "Skill Stream: Solving Linear Systems by Inspection, Substitution, or Graphing," students are demonstrating their understanding of the topic by determining solutions to systems of equations using graphing, substitution, and inspection methods.

The materials do not include educator guidance or support for students in demonstrating understanding of mathematical concepts in various ways.

3.2 Instructional Methods

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.2a	The materials do not include explicit prompts and guidance for educators to build knowledge by highlighting and connecting key patterns, features, or relationships through multiple means of representation.	2/5
3.2b	This guidance is not applicable to the program.	N/A
3.2c	All criteria for guidance met.	3/3
3.2d	The materials do not include enrichment and extension methods that support various forms of engagement or guidance to support educators in effective implementation.	0/2
3.2e	All criteria for guidance met.	2/2
—	TOTAL	7/12

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

The materials include explicit prompts and guidance for educators to activate prior knowledge; for example, within the *Texas Supplemental Math Overview*, "Appendix B" provides recommended TEKS entry points that teachers can use to connect new instruction to students' prior learning.

The materials also include explicit prompts and guidance for anchoring big ideas. "Appendix D" of the *Texas Supplemental Math Overview* provides guidance for lesson internalization, including identifying and understanding the big idea for each unit.

The materials do not include explicit prompts or guidance for highlighting and connecting key patterns, features, or 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.

The materials include multi-tiered intervention methods for various types of practice. In Module 5, Topic 4, Lesson 2 MATHstream Video "Problem-Solving with Cones," the materials guide students through an eight-minute video, and a virtual teacher named Ms. Reddig introduces a lesson on finding volume of

cylinders and cones, along with essential vocabulary and examples (TEKS 8.7A). Within the video, there is an opportunity for students to practice independently. The video completely stops and allows students to work on the question provided. Then, the program checks their answers for accuracy and continues the MATHstream lesson, in which the virtual teacher explains each correct answer.

The MATHstream Videos provide multi-tiered intervention methods for various structures. For example, the Module 4, Topic 2, Lesson 1 MATHstream Video titled "Graphing and Interpreting a Point of Intersection" lends itself to being projected in a whole group setting in the classroom. The MATHstream Video format allows the educator to pause and explain the concept further, if needed. The MATHstream Video format is a multi-tiered intervention method so students can work independently or in small groups on their laptops. Students can stop the video and replay parts where they need repetition or further clarification.

The materials include educator guidance to support the effective implementation of multi-tiered intervention methods. The color-coding system under the "Data Insights" Mathia Reports component lists students who may need remediation by identifying their names with a red circle. The materials also include an intervention resource tab under the module.

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

The materials do not include enrichment or extension methods that support various forms of engagement. All students complete the same lessons and activities without variation based on proficiency levels. For example, in Module 5, Topic 2, MATHia Adaptive Problem-Solving "The Pythagorean Theorem," students apply the Pythagorean Theorem and its converse to real-world and mathematical problems. While this task provides practice within the core content, it does not function as an enrichment or extension method designed to deepen or broaden learning for students who have already demonstrated proficiency.

The materials also do not include guidance to support educators in effectively implementing enrichment or extension. Options are not provided for differentiating instruction to challenge advanced learners or extend knowledge through depth and complexity.

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

The materials include prompts to support educators in providing timely feedback during lesson delivery. For example, LiveLab includes real-time dashboards that display dynamic indicators identifying which students are working or idle while providing alerts to educators for students who may need additional support. Live notifications allow teachers to celebrate individual student academic growth and identify those needing additional support to reach proficiency.

The materials include guidance to support educators in providing timely feedback during lesson delivery. For example, LiveLab alerts allow teachers to view a detailed summary of student work, including activity and total workspaces completed, so that the teacher can provide individualized support on a specific problem, small-group support, or whole-group instruction.

Guidance for teachers includes recommendations for student grouping. LiveLab allows teachers to prioritize at-risk students and group students by current workspace to support multiple students simultaneously.

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	The materials do not include embedded linguistic accommodations for all levels of language proficiency designed to engage students in using any higher order of English-language proficiency.	1/4
3.3c	The materials do not include implementation guidance to support educators in effectively using the materials in state-approved bilingual/ESL programs.	0/1
3.3d	The materials do not include embedded guidance to support emergent bilingual students in developing academic vocabulary, increasing comprehension, building background knowledge, and making cross-linguistic connections through oral and written discourse.	0/8
3.3e	This guidance is not applicable to the program.	N/A
—	TOTAL	1/13

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

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

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

The materials do not include embedded linguistic accommodations for all levels of language proficiency designed to engage students by increasing academic vocabulary. The materials include embedded linguistic accommodations for only one English language proficiency level. For example, in Module 2, Topic 1, MATHia Adaptive Problem-Solving "Representations of Proportional Relationships," the adaptive material includes a glossary that is accessible for every student that includes the vocabulary, definition, and example, including a visual representation to support emergent bilingual students.

The materials do not include embedded linguistic accommodations for all levels of language proficiency. The materials do not provide accommodations designed to engage students at higher levels in English language proficiency. The lessons and workspaces provided in the modules are not tiered. The students are not presented with math problems of increasing complexity. Students are not challenged with any additional linguistic development as the sentences are the same across all modules and within every workspace for every student. The materials do not address the multiple levels of language development or promote further and increased academic language development as students advance their understanding of the content.

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

The materials do not include implementation guidance to support educators in effectively using the materials in state-approved bilingual/ESL programs. While the materials provide general guidance for emergent bilingual support in the Help Center, no evidence of implementation in state-approved programs is provided.

The materials do not provide any resources to the educator, such as one-pagers, video presentations, and handbooks, to guide teachers on the principles and essentials of language acquisition 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.

The materials do not include embedded guidance to support emergent bilingual (EB) students in developing academic vocabulary, increasing comprehension, building background knowledge, or making cross-linguistic connections through oral or written discourse. "Making Sense of Mathematics in Texas Supplemental Math" under "Developing and Using Academic Mathematical Language" provides general guidance for developing academic language but does not specifically include strategies to support EB students. For example, the materials do not provide students with structured opportunities for written or oral discourse of the academic content. While the materials provide general guidance for EB support in the Help Center, no evidence of guidance for support through oral and written discourse is present.

The materials provide a glossary for students under the "Tools" tab and other resources without integrating vocabulary instruction into the lessons. The glossary does not differentiate or provide vocabulary support to EB students, and there are no additional embedded vocabulary support resources.

The materials do not provide students with opportunities to develop academic vocabulary, increase comprehension, build background knowledge, or make cross-linguistic connections through oral or written discourse. Lessons consist primarily of individual activity sheets or tasks without structured opportunities for students to discuss or write about the content.

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

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

4. Depth and Coherence of Key Concepts

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

4.1 Depth of Key Concepts

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.1a	All criteria for guidance met.	2/2
4.1b	The materials do not include questions, tasks, or enrichment and extension materials that increase in rigor and complexity, leading to above-grade-level proficiency.	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.

The materials provide students multiple practice opportunities throughout learning pathways that require students to demonstrate depth of understanding aligned to the TEKS. For example, in the Mastery Workspace, the materials state, "Students move on when they have mastered all of the skills in a workspace (workspace is Mastered) or when they reach the maximum number of problems in a workspace without demonstrating mastery on all of the skills (workspace is Not Mastered)."

The adaptive problem-solving in several lessons offers scaffolding hints to support students.

The varying question types, increasing complexity of the item types, and varying answer response types, such as fill-in-the-blank and drop-down questions, provide students with opportunities to demonstrate their depth of understanding.

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

The materials include questions and tasks through the MATHstream Videos that increase rigor and complexity for above-grade-level proficiency in the mathematics TEKS. For example, in Module 4, Topic 2, MATHia Adaptive Problem-Solving, the "Modeling Linear Systems Involving Integers" video asks students to write equations to model linear relationships between two quantities using verbal, numerical, tabular, and graphical representations (TEKS 8.5I), providing questions and tasks that increase in rigor and complexity, leading to grade-level and above-grade-level proficiency to move to solving systems with two linear equations with real-world applications (TEKS A.5C).

The materials include MATHstream Videos that provide enrichment and extension that increase in rigor and complexity and lead to grade-level and above-grade-level proficiency in the mathematics TEKS. For example, in Module 1, Topic 1, MATHia Adaptive Problem-Solving, the "Rigid Motions on the Coordinate Plane" materials ask students to describe and perform transformations of figures in a plane using coordinate notation (TEKS G.3A), providing enrichment and engagement activities that increase in rigor and complexity, leading to above-grade-level proficiency in describing rigid motions using coordinates. The "Features and Functionalities" article references above-grade-level TEKS, but the student lessons do not include questions or tasks that lead to above-grade-level proficiency in the mathematics TEKS.

4.2 Coherence of Key Concepts

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.2a	All criteria for guidance met.	1/1
4.2b	All criteria for guidance met.	1/1
4.2c	All criteria for guidance met.	4/4
—	TOTAL	6/6

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

The materials demonstrate coherence across concepts horizontally within the grade level by connecting patterns, big ideas, and relationships. Within the "Course Overview Grade 68" video in the "Course Navigator Tab," the overview explains how topics are interconnected in the "Texas Grade 8 Scope and Sequence."

The unit overviews in the module prompt the student to recall and recollect with reminders by connecting patterns, ideas, and mathematical relationships. For example, in Module 2, Topic 1, the overview states, "In this topic, students build on their knowledge of ratio and proportional relationships to develop connections between proportional relationships, lines, and linear equations."

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

The materials demonstrate coherence vertically by connecting big ideas, patterns, and mathematical relationships. For example, in Module 4, Topic 1, the overview states, "In this topic, students increase the range of one-variable linear equations they can solve, as they solve equations with variables on both sides of the equals sign. Students review previously learned strategies for solving equations and learn new strategies to make solving equations more efficient."

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

The lessons within the materials connect to future grade levels using MATHstream and MATHia videos and questions. For example, in Module 4, Topic 2, Lesson 2, the MATHstream Video presents TEKS 8.9A (expressions, equations, and relationships), which also includes TEKS A.5C (solve systems of two linear equations with two variables for mathematical and real-world problems), and TEKS A.3F (graph systems of two linear equations in two variables on the coordinate plane and determine the solutions if they exist).

The materials demonstrate coherence across lessons or activities by connecting previously learned concepts and procedures to future grade-level concepts and procedures. For example, Module 5, Topic 3, MATHia Adaptive Problem-Solving "Simple and Compound Interest" demonstrates coherence with activities that connect the TEKS 8.12D calculate and compare simple interest and compound interest earnings, using future grade-level concepts and procedures, such as TEKS A.9C, which involves writing exponential functions.

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.

The materials provide opportunities to retrieve previously learned skills and concepts across pathways throughout an array of course units and modules. In grade 8, Module 2 develops function foundations as students move from proportions to linear relationships to an introduction of functions.

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

The materials provide interleaved practice opportunities with previously learned skills and concepts across learning pathways throughout various units, within several modules; for example, in Module 1, Topic 1, Lesson 7, students practice a combination of rigid motion transformations that allow them to use previously learned skills and concepts.

5. Balance of Conceptual and Procedural Understanding

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

5.1 Development of Conceptual Understanding

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.1a	All criteria for guidance met.	3/3
5.1b	The materials do not provide questions and tasks that provide opportunities for students to create concrete models of mathematical representations.	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.

The materials include questions and tasks that provide opportunities for students to interpret mathematical concepts in complex real-world situations throughout various units and modules. For example, in grade 8, Module 3, Topic 1 "Using Lines of Best Fit," students practice interpreting the meaning of lines of best fit and using the lines to make predictions.

The materials include questions and tasks that provide opportunities for students to interpret and analyze models and representations for mathematical concepts in complex real-world situations. In grade 8, Module 2, Topic 3 "Describing Graphs of Functions," students use an interactive function machine and a graph to identify and analyze functions.

The materials include questions and tasks that require students to evaluate models and representations for mathematical concepts and situations. For example, in Module 2, Topic 2, MATHia Adaptive Problem-Solving "Using Tables, Graphs, & Equations," students develop fluency with interpreting and analyzing linear relationships, writing equations of lines, and graphing lines. Students use intuition and prior knowledge about writing equations, creating tables of values, and graphing equations to compare two linear relationships. In grade 8, Module 2, Topic 3, MATHia Adaptive Problem-Solving "Comparing Functions Using Different Representations, Comparing Linear Functions in Different Forms," students evaluate and compare real-world functions in different representations.

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

The materials provide questions and tasks to provide opportunities for students to create representations of mathematical situations. For example, in Module 2, Topic 3, MATHia "Describing Graphs of Functions—Exploring Graphs of Functions," students use an interactive function machine to represent equations.

The materials include many opportunities to create representations of mathematical situations, but materials do not provide opportunities, questions, or tasks to develop concrete models of mathematical situations.

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

The materials include questions and tasks that allow students to apply conceptual understanding to new problem situations and contexts. For example, in Module 3, Topic 1, Mathia Adaptive Problem-Solving "Analyzing Patterns in Scatter Plots—Using Lines of Best Fit," students apply conceptual understanding to new problems and situations to make estimations and inferences in new problem situations and 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	All criteria for guidance met.	1/1
—	TOTAL	9/9

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

The grade 8 materials provide tasks designed to build student automaticity necessary to complete grade-level mathematical tasks. For example, in Module 5, Topic 4, Lesson 1, the materials state that "Students use their prior knowledge about lateral and total surface area of rectangular prisms to determine lateral and total surface area of cylinders."

The materials provide tasks to develop the fluency necessary to complete grade-level mathematical tasks. For example, in Module 1, Topic 3 "Classifying Angles Formed by Transversals," the materials state that "students follow Worked Examples and complete sorting activities with fluency checks as they learn to identify angles and angle pairs formed by lines cut by a transversal."

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

The grade 8 materials provide opportunities for students to practice the application of efficient mathematical procedures for problem-solving. For example, in Module 5, "students work with numbers that involve powers, including numbers expressed in scientific notation. Students also approximate values of irrational numbers, specifically square roots of numbers. They then solve real-world problems that require application of powers and build fluency in operating with real numbers."

The materials provide opportunities for students to practice the application of accurate mathematical procedures for problem-solving. For example, in Module 2, Topic 3, Workspace 1, students compare linear relationships in different forms. Feedback is provided for incorrect answers with in-depth explanations to help the students solve upcoming related problems.

The materials provide opportunities for students to practice the application of flexible mathematical procedures. The workspaces and instructional videos focus on multiple methods of mathematical procedure within every module and instructional video. These varied representations help students develop flexibility in how they understand mathematics.

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

The materials provide opportunities for students to evaluate mathematical representations, models, strategies, and solutions for efficiency. For example, in Module 4, Topic 1 "Interpreting the Number of Solutions to Equations," students are asked to accurately solve equations and determine the number of solutions to that equation by using the worked example and steps provided. As the students progress through the workspaces, they are asked to efficiently classify the equations without the materials providing the steps.

The materials provide opportunities for students to evaluate mathematical representations, models, strategies, and solutions for flexibility. For example, in Module 5, Topic 4, Lesson 1, students explore how to determine the volume of a cylinder using different methods of instruction and mathematical procedures to prove flexibility throughout the pathway.

The materials provide opportunities for students to evaluate mathematical representations, models, strategies, and solutions for accuracy. For example, in Module 5, Topic 4, Lesson 1, MATHstream Video "Volume of a Modified Cylinder," students are evaluating mathematical procedures. The materials offer feedback based on the students' answers to questions that demonstrate their accuracy throughout the learning pathways.

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

The article "MATHia + MATHstream Guidance for Educators" highlights hints that are embedded in the MATHia adaptive questions and tasks that contain guidance to support students in selecting increasingly efficient approaches to solve mathematics problems.

MATHia contains guidance to support students in selecting increasingly efficient approaches to solve mathematics problems with Just-in-Time Hints and On-Demand Hints, which are embedded in the MATHia software and will lead students to efficient approaches in problem-solving.

5.3 Balance of Conceptual Understanding and Procedural Fluency

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.3a	All criteria for guidance met.	2/2
5.3b	The materials do not include questions and tasks with opportunities for students to use concrete models, as required by the TEKS.	2/3
5.3c	The materials do not include support for students in creating, defining, and explaining concrete and representational models to abstract concepts.	2/6
—	TOTAL	6/11

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

Grade 8 materials include the *Texas Supplemental Math Overview*, which explains how MATHia and MATHstream balance conceptual understanding with procedural fluency. According to the article, "Conceptual learning is fostered through interactive tools, multiple representations, and activities like Worked Examples and Explore Tools that encourage students to investigate patterns, structures, and relationships before formalizing methods." The article also suggests that "Procedural skills are built through adaptive, targeted practice in Concept Builder and Mastery workspaces, gradually increasing in complexity until mastery is reached, with teacher-facing reports providing precise feedback for targeted support or enrichment." The *Texas Supplemental Math Overview* explains that the live explanations in MATHstream Videos provide procedural focus, "including visual and verbal modeling, and real-time connections between different representations." At the same time, interactive practice reinforces procedural skills within each video segment and end-of-stream assessments. The article continues to explicitly state that "both programs align procedural practice with the contexts in which concepts appear, students experience a continuous feedback loop in which conceptual understanding supports procedural accuracy, and procedural fluency reinforces conceptual insight."

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

The materials include questions and tasks for students to use pictorial representations, and abstract models as required by the TEKS. For example, in grade 8, Module 3, Topic 2, MATHstream Video "Using Random Samples to Make Predictions," students use a pictorial representation of squares from a floor plan to show that random samples can be used to make predictions. The task provides the opportunity for students to use the floor plan model to randomly select samples. The students then use this data to estimate the parameter of the population.

The materials do not include or provide opportunities for students to use concrete models as required by the TEKS. For example, when teaching equations, the materials do not offer students the use of algebra tiles to model or solve an equation.

On page 5 of the "Features and Functionality" document, the article references connections among concrete, pictorial, and abstract representations; however, the materials do not include opportunities for students to use concrete models.

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

The materials include supports for students in connecting concrete and representational models to abstract (symbolic/numeric/algorithmic) concepts, as required by the TEKS. For example, in Module 5, Topic 2, Lesson 1, MATHstream Video "Using the Pythagorean Theorem to Determine an Unknown Side Length," students are led to notice a pattern in the squares of the side lengths of right triangles and learn this as the Pythagorean Theorem. Students prove the Pythagorean Theorem using one of three different geometric methods. In this video, students are provided supports to connect representational models to abstract concepts.

The materials do not include supports for students in creating, defining, and explaining concrete and representational models to abstract concepts. The materials do not consistently use representations or manipulatives across lessons and activities, which does not provide students with enough opportunities for practice.

5.4 Development of Academic Mathematical Language

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.4a	All criteria for guidance met.	1/1
5.4b	The materials do not include embedded educator guidance on scaffolding, support, and extending students' use of academic mathematical vocabulary in context when communicating with peers and educators.	0/2
5.4c	All criteria for guidance met.	1/1
5.4d	The materials do not include embedded guidance for refining and using mathematical language with peers.	0/2
5.4e	The online platform does not include embedded guidance to anticipate a variety of student answers, including exemplar responses to questions and tasks.	1/2
—	TOTAL	3/8

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

The materials provide opportunities for students to develop academic mathematical language using visuals, manipulatives, or other language development strategies throughout various modules and lessons. For example, in grade 8, Module 1, Topic 3, "Line and Angle Relationships," Lesson 2: "Crisscross Applesauce" MATHstream, LessonStream: "Lines Intersected by a Transversal," the video develops the term, vertical angles, and uses a visual as a strategy. In addition, throughout the modules there are various pop ups with vocabulary support.

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

The materials do not include embedded educator guidance to scaffold and support students' use of academic vocabulary in context when communicating with peers and educators. The Help Center offers scaffolding support in MATHia but is not specific to academic language. The videos provide brief suggestions for introducing new mathematical vocabulary, but do not include detailed strategies for educators for scaffolding students' use of the terms in various mathematical contexts.

The materials do not extend students' use of academic mathematical vocabulary in context when communicating with peers and educators, either orally or in writing. The Help Center offers scaffolding support in MATHia, but this support is not specific to academic language. The videos prompt students for discourse within the lesson, asking open-ended questions to elaborate on thinking, but do not specifically ask students to engage with others or write down mathematical statements using academic vocabulary.

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

The materials include embedded guidance to support student application of appropriate mathematical language and academic vocabulary in discourse. Besides multiple examples found in the materials through the MATHstream lessons, the materials also provide the four-page article "Making Sense of Mathematics in Texas Supplemental Math," which details the ways that the materials support students' development of academic and mathematical language, including ideas and examples on how to use MATHia and MATHstream in peer interactions and whole-group discussion. For example, students have opportunities for discourse within the lesson, with the video instructor asking for explanations from the students.

The "Making Sense of Mathematics in Texas Supplemental Math" article also guides the educator in modeling precise vocabulary to support students in applying mathematical language themselves.

MATHstream includes interactive video lessons that allow for student collaboration. This encourages students to articulate their reasoning for problem-solving strategies. The "Making Sense of Mathematics in Texas Supplemental Math" article also explains that MATHia provides interactive tools to support the internalization of key terms and problem-solving skills.

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

The online materials do not include embedded guidance to facilitate mathematical conversations, allowing students to hear math language with peers. The Help Center has a document titled "What Does Collaboration Look Like in MATHia?" This document provides optional embedded guidance for educators to allow students to work in the same workspace when possible, have students lead small groups when working through examples, and group students together who are working in the same workspace. The guidance suggests that students can work from the same computer, so each student's strength can contribute to the collaborative answer. The article provides generic suggestions for facilitating mathematical conversations, but no embedded guidance ensures students will hear, refine, or use math language with their peers.

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

The materials do not include embedded guidance to anticipate a variety of student answers, including exemplar responses to questions and tasks. No guidance resources are provided within the teacher resources to help educators anticipate common misconceptions or inaccurate thinking. Students within

MATHia are not provided with feedback when their answers are wrong when working individually in the workspaces. The materials did not provide exemplar student responses.

The materials include embedded guidance to support and redirect inaccurate student responses. Within the Help Center is a "LiveLab Overview" document that gives an overview of how educators can use LiveLab to support students by receiving notifications or alerts as students progress through the content. These alerts allow educators to monitor and support those having difficulty mastering a skill and guide the students.

5.5 Process Standards Connection

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.5a	All criteria for guidance met.	1/1
5.5b	All criteria for guidance met.	2/2
5.5c	The materials do not include an overview of the TEKS process standards incorporated into each lesson.	0/1
—	TOTAL	3/4

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

The TEKS process standards are integrated appropriately into the digital materials throughout the various lessons and modules; for example, in grade 8, Module 5, the "Module Overview" for "Applying Powers" includes applying problem-solving strategies to solve real-world problems that require the application of powers and building fluency with real numbers.

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

The materials describe how TEKS process standards are incorporated into the digital materials throughout the various lessons and modules. The material does not explicitly state the exact process standards; however, there is ample evidence throughout the materials that the TEKS process standards are incorporated throughout the learning pathways. For example, in the Grade 8 topic overview "Volume of Curved Figures," the materials allow students the opportunity to solve real-world and mathematical problems for prisms, cylinders, and spheres. Students then apply this learning to determine the surface area of composite figures.

The materials describe how TEKS process standards are incorporated into the digital materials throughout the various lessons and modules. The material does not explicitly state the exact process standards; however, there is ample evidence throughout the materials that the TEKS process standards are incorporated throughout the learning pathways. For example, in the grade 6 Topic Overview for "Unit Rates and Conversions," the materials embed real-world problems using rates and unit rates, where students can apply problem-solving strategies. The materials also embed opportunities to use models and to justify reasoning by evaluating and determining the unit rate/rate to find the better buy.

The materials describe how TEKS process standards are connected throughout the learning pathways. For example, the materials do include a table that provides an overview and explains how the process standards are embedded throughout the course, highlighting their connections to the content standard. Within the *Texas Supplemental Math Overview*, there is a TEKS Process Standards Integration Table.

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

The materials do not provide an overview of the TEKS process standards incorporated into each lesson. Within the Help Center, a Program Correlation lists all TEKS except the process standards. The "Table of Contents" in the Help Center lists TEKS, but these materials do not include the process standards. The materials include a table aligning the lessons with content TEKS but do not include the TEKS process standards or provide an overview of how the materials incorporate the process standards into each lesson.

6. Productive Struggle

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

6.1 Student Self-Efficacy

GUIDANCE	SCORE SUMMARY	RAW SCORE
6.1a	All criteria for guidance met.	3/3
6.1b	All criteria for guidance met.	3/3
6.1c	The materials do not require students to write about math with peers and/or educators.	2/3
—	TOTAL	8/9

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

The materials provide opportunities for students to think mathematically. In Module 1, Topic 3, MATHia Adaptive Problem-Solving, "Angle Relationships Formed by Lines Intersected by a Transversal," within the workspace "Reasoning About Angles Formed by Transversals," students are asked to mathematically reason to solve problems involving parallel lines and transversals.

The materials provide opportunities for students to persevere through solving problems. For example, in Module 2, Topic 1, MATHia Adaptive Problem-Solving, "Representations of Proportional Relationships," within the workspace "Representing Proportional Relationship Algebraically," students model the constant of proportionality using a table and graph. The lesson begins with a step-by-step example, which breaks down the steps to solve the problem. Based on question one, students enter a value in the table, and they continue until they fill it. Next, the materials give students a different scenario, and they fill in the table based on each question. Students can click on "hints," which highlights key words and areas of the table, or they can go back to the step-by-step example. As they enter values in the table, the screen displays a checkmark or "x" to indicate whether their answer is correct. The model helps students see the table of values on the coordinate plane to determine if the table or the graph models a proportional situation.

The materials provide opportunities to make sense of mathematics. For example, in Module 2, Topic 3, "Introduction to Functions," within the MATHia Adaptive Problem-Solving "Defining Functional Relationships," the material provides a reminder for students for questions one and two that states "this situation represents a function, because no value of the independent quantity maps to more than one value of the dependent quantity." In addition, the materials provide an example with the answers identifying both the independent and dependent values. The material also asks the question "The situation is a relation that ___ a function because ___" allowing the students the opportunity to make sense of the math.

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

The materials support students in understanding that there can be multiple ways to solve multiple problems and complete various tasks. For example, in Module 4, Topic 2, Lesson 1, MATHstream Video, LessonStream "Graphing and Interpreting a Point of Intersection," students find the break-even point for the Parent Teacher Organization that wants to sell t-shirts. In the MATHstream Video, the materials ask students to find the break-even point by solving the equation, completing a table of values, and graphing. In this way, the materials provide students with an explanation of finding the break-even point in multiple ways.

In Module 2, Topic 1, MATHia Adaptive Problem-Solving, Workspace "Comparing Proportional Relationships in Different Forms," the students can understand and explain that two different representations can be proportional. The students are given representations in equations, tables, graphs, and descriptions. Students find the unit rate, constant of proportionality, or the slope, and make the connection that even though the materials give students different representations, the students are still representing proportional relationships.

The materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks. The article "Making Sense of Mathematics" states that "MATHia and MATHstream help students recognize that there are often multiple valid ways to solve problems, while requiring them to make sense of mathematics through active engagement. Streams and workspaces present tasks in multiple representations—verbal, algebraic, graphical, and numerical—and prompt learners to solve problems using different strategies, compare approaches, and justify their reasoning."

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.

In the Help Center, the "Making Sense of Mathematics" addresses how materials are designed to require students to make sense of mathematics through multiple opportunities to do and discuss math with peers, and/or educators. This article details that students in the same workspace receive similar, but not identical, problems, encouraging student-to-student discussions about strategies rather than just sharing answers.

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

6.2 Facilitating Productive Struggle

GUIDANCE	SCORE SUMMARY	RAW SCORE
6.2a	The materials do not support educators in guiding students to share or reflect on their problem-solving approaches, including explanations, arguments, justifications, and multiple points of entry.	0/8
6.2b	The materials do not include prompts to support educators in providing explanatory feedback for anticipated misconceptions.	3/4
—	TOTAL	3/12

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

The materials do not support educators in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, justifications, and multiple points of entry. The "Instructional Tools in the Student MATHia Software" Help Center article describes the embedded MATHia features that support student learning, but these features do not support students nor provide support for educators in guiding students to share and reflect on their problem-solving approaches.

The material's rationale states, "Explore Tools invite students to investigate concepts, discern patterns, and articulate their thinking; ideal for sharing approaches. Animations let students observe and discuss various solution methods visually, encouraging reflection on alternative strategies. Classification Tools require students to justify categorizations, promoting discussion of reasoning pathways. Problem-Solving Tools provide adaptive, individualized support while prompting students to explain their method as they progress. Worked Examples encourage students to compare and critique different solution steps, helping them justify why certain approaches work and identify misconceptions. These instructional tools give educators structured, embedded ways to facilitate student explanation, justification, and reflection, reinforcing the idea that multiple valid approaches exist." However, the materials do not guide educators on using these features to guide students in sharing and reflecting on their problem-solving approaches, including explanations, arguments, justifications, and multiple points of entry.

The materials do not include questions or prompts that educators can use to guide students in reflecting on their problem-solving approaches. They also do not include guidance on promoting meaningful engagement in mathematical discourse or fostering relevant conversations. The materials do not support students in justifying their problem-solving approaches. The materials do not include guidance or opportunities for the educator or student to write, explain, or justify their approaches.

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

The online materials include prompts and guidance to support educators in providing feedback based on student responses. For example, in Module 2, Topic 2, MATHia Adaptive Problem-Solving "Using Tables, Graphs, and Equations, Modeling Linear Relationships," Workspace "Modeling Linear Relationships Using Multiple Representations," within the step-by-step example, students are given two scenarios where two different meteorologists must predict rain for two days. The materials ask students to complete the worksheet and graph the model using an interactive tool. While completing the worksheet, if the student enters only a numerical answer, the feedback/prompt says, "Enter the word inches for measuring the amount of rain tomorrow." The example also guides the student to write the expressions, such as "The amount of rain tomorrow is an independent quantity that varies from question to question. Therefore, you can represent it with a variable."

The materials guide educators in providing explanatory feedback based on student responses to the educator. In the Help Center, the LiveLab alerts educators to struggling students and specific math skills covered in that workspace. This online feature provides educators with suggestions on various methods to provide remediation for the student.

The Help Center provides an article, "Making Sense of Mathematics," that provides guidance to support educators in providing explanatory feedback based on anticipated misconceptions. It states that the graphing tools in MATHia can be used to give visual feedback for misconceptions involving graphs.

The materials do not include resources within the Help Center or individual modules and lessons containing prompts for common misunderstandings or anticipated misconceptions.