Carnegie Learning, Inc.

Supplemental English Mathematics, Geometry

Texas Supplemental Math Solution Geometry–Student 1 Year License

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Supplemental	**9798896388715**	**Digital**	**Adaptive**

TEKS SCORE	TEKS BREAKOUTS ATTEMPTED	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	48	0	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	24 out of 38	63%
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	Materials do not include an alignment guide outlining the ELPS or a rationale for learning paths across grade levels (vertical alignment).	3/5
1.1b	Materials do not include an implementation guide.	2/3
1.1c	Materials do not include a TEKS correlation guide with recommended skill entry points based on diagnostic assessment results.	0/2
1.1d	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.

Materials include a "Table of Contents" that shows Texas Essential Knowledge and Skills (TEKS) alignment for each lesson and provides an overview of the concepts addressed in each lesson.

The correlation document reflects horizontal alignment, which lists the specific location each TEKS appears in the program.

Materials include vertical alignment from grade 6 through Algebra I in the Topic Readiness Resources provided in each topic. Materials do not include vertical alignment for courses beyond Geometry.

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.

Materials include strategies to support effective educator practices in different instructional contexts. For example, LiveLab provides real-time alerts that show which students are active or idle while working in MATHia. The materials include guidance to help teachers support students, such as "Redirect students to use the assistance features in MATHia before providing them with direct teacher support" and "Connect MATHia problems to classroom experiences, prior knowledge, real-world experiences, tools, and/or

technology." In addition, teachers are advised to use the "Group by Workspace" feature in LiveLab to pair students who can support one another.

Materials provide intervention suggestions for topic readiness and re-engagement activities.

Materials do not include an implementation guide or provide usage recommendations.

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

Materials do not include a TEKS correlation guide that provides recommended skill entry points based on 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.

Texas Supplemental Math Overview provides an implementation guide that gives instructional leaders guidance for effectively implementing the program, including coherence across lessons and grade levels and TEKS correlation and skill entry points.

1.2 Lesson-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.2a	This guidance is not applicable to the program.	N/A
1.2b	Detailed overviews include all parts of the rubric except ELPS alignment.	3/5
1.2c	Materials do not contain support for families in Spanish and English for each unit or suggestions on supporting the progress of their 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.

Materials include detailed overviews with learning objectives and TEKS, as well as suggested time frames.

Lesson materials and assessments do not include English Language Proficiency Standards (ELPS) correlations.

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

The publisher has indicated there is no family/caregiver guide for supporting the progress of students.

Resources for families to support student progress are not present in the materials.

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 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	Materials do not include diagnostic assessments.	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.

For MATHstream, 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.

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.

Materials provide guidance to support consistent administration of instructional assessments, including recommended teacher actions before and during assessment administration. 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."

The Educator Help Center provides suggestions for preparing the learning environment, facilitating MATHia, and setting clear expectations while students are working within the materials.

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.

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

There are no printable versions of the digital assessments or workspace questions. The educator must be able to enable or disable the features to support the individual needs.

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

No evidence of diagnostic assessments was found in the materials.

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

Materials provide a variety of opportunities for students to engage with interactive item types, including fill-in-the-blank, select from a drop-down menu, plot points, and graph equations. For example, in Module 3, Topic 2: "Trigonometry, MATHia Adaptive Problem-Solving, Sine, Cosine, and Tangent, Using One Trigonometric Ratio to Solve Problems," students are asked to describe multiple quadratic functions using a variety of interactive item types, including fill in the blank, select from a drop-down menu, plot points, and graph equations.

In Module 3, Topic 2 "Trigonometry," MATHia Adaptive Problem-Solving: "Sine, Cosine, and Tangent, Using One Trigonometric Ratio to Solve Problems," students encounter varying levels of complexity as they identify and calculate trigonometric ratios and solve real-world problems.

2.2 Data Analysis and Progress Monitoring

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.2a	Materials do not include rationales for each correct response in instructional assessments. Scoring information and guidance for interpreting student performance, along with a rationale for each incorrect response, is included.	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 multiple reports with scoring information and guidance for interpreting student performance, which are accessible within the Teacher Help Center. For example, the "Understanding the Progress Report" states, "The Group Progress Report provides detailed information about a group of students and their progress and performance at the module, unit, and workspace levels in MATHia."

Teachers are provided with real-time scoring information and guidance for interpreting student performance through the LiveLab Overview. The LiveLab Overview provides teachers with "in-the-moment, actionable data to enable them to efficiently and effectively manage students working in MATHia during a classroom lab."

Materials provide rationales for incorrect responses called Just-In-Time Hints, but do not provide rationales for correct responses through the 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.

Materials include guidance to ensure consistent administration of instructional assessments. For example, the Learning through Assessments section of the Help Center 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."

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.

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

Materials include Progress Reports, accessible in the "Data Insights" tab, that track student progress and performance at the module, unit, and workspace levels in MATHia. Teachers can see the status of every workspace, each student's current placement within the assigned content, the number of workspaces completed, the syllabus completion percentage, and the average performance score for a selected date range, allowing teachers to monitor student growth.

Materials include MATHstream Reports, accessible in the Data Insights tab, that allow teachers to track student progress and growth. For example, teachers can monitor which topics require the most repeats across the class to identify where whole-class instruction may be beneficial.

Materials include tools for students to track their progress and growth, such as viewing the percentage of the course completed, the total number of workspaces completed, total time spent in each unit, and a performance score for each completed workspace.

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

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

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

Materials provide frequent checks for understanding at key points throughout each lesson or activity. For example, MATHstream Video lessons include multiple embedded checkpoints. Students answer questions at key moments during each lesson and earn digital badges for maintaining streaks of correct answers.

MATHia Mastery Workspaces include adaptive Skillometer circles that change as students answer questions correctly or incorrectly and as rigor builds throughout the workspace. For example, in Module 3, Topic 1, MATHia Adaptive Problem-Solving: "Dilating Figures, Specifying a Sequence of Transformations," materials provide checks for understanding by asking students to select multiple transformations from translation, rotation, dilation, and reflection about any line to match a pre-image to a target image, given a reference point. Problems increase in rigor throughout the lesson, and the Skillometer measures progress.

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	Materials do not provide explicit pre-teaching support for educators to develop academic vocabulary or to support unfamiliar references in the text.	2/4
3.1c	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	Materials do not include accommodations, including text-to-speech, content and language supports, and calculators that educators can enable or disable to support individual students.	0/3
3.1e	Materials do not include educator guidance or options and supports for students to demonstrate understanding of mathematical concepts in various ways.	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.

Materials provide educator guidance for scaffolding activities that educators can use with MATHia. For example, in "Scaffolding Support in MATHia," suggested scaffolds include demonstrating step-by-step examples as a whole class, meeting with small groups during a Concept Builder Workspace, or providing one-on-one instruction based on trends in student performance analyzed through "Data Insights" reports.

Materials include Topic Readiness Resources in each lesson to activate prerequisite concepts and skills for students who have not yet reached proficiency. Educator guidance for Topic Readiness Resources includes skill descriptions and vertical alignment details.

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 embedded language support for developing academic vocabulary. For example, the MATHia Glossary, available throughout the course, provides definitions, pictorial representations when possible, and examples for each entry as embedded supports for developing academic vocabulary.

Materials do not include pre-teaching supports to develop academic vocabulary or support unfamiliar references in text; therefore, there is no explicit educator guidance for pre-teaching supports present.

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 enrichment or extension activities for students who have demonstrated proficiency in grade-level or above-grade-level content and skills; therefore, no explicit educator guidance for enrichment or extension is present.

While materials state that if a student completes all units in their assigned grade-level MATHia course before their classmates, the student may serve as a peer tutor or begin work in the next course if the school has purchased it, these options do not provide explicit educator guidance for enrichment or extension within the program.

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

While a student-controlled text-to-speech feature is present in the materials, educators cannot enable or disable this accommodation to support 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 do not include options or supports for students to demonstrate understanding of mathematical concepts in various ways; therefore, no educator guidance for offering these options and supports is present.

3.2 Instructional Methods

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.2a	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	Materials do not include enrichment or extension activities for students, except for the option to work at a faster pace through the course's materials.	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.

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.

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.

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.

Materials include multi-tiered intervention methods for various types of practices and teacher guidance to support effective implementation. For example, guidance is provided in "Creating an Engaged and Productive MATHia Classroom." Teachers are instructed to "allow students to collaborate with other

students on a problem-by-problem basis. Even when receiving support from others, students will still receive individualized practice within their MATHia profile." Additionally, teachers should "provide time for spaced review as students work through MATHia at their own pace. Use this time to place students in small groups that you can support during MATHia lesson days." Materials also include multi-tiered intervention methods for various types of structures and teacher guidance to support effective implementation. For example, in "Cultivating a Blended Learning Approach," teacher guidance states, "Replace a traditional practice assignment with time to complete a MATHia Workspace. Students who are working at the pace of the class will be completing a workspace aligned to the concept you are currently studying. Students who need additional support may be completing workspaces for prerequisite skills. Students who are working at a faster pace may be working on more advanced workspaces." The teacher is guided to utilize "Data Insights" to structure the classroom for effective implementation of a variety of workspaces. Materials provide live reports as students work and provide suggestions for student-grouping structures based on similar learning gaps.

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

Materials do not include enrichment or extension methods that support various forms of engagement. While students may move through the course materials at a faster pace, this option does not constitute enrichment or extension because it does not provide additional opportunities for depth, complexity, or alternative forms of engagement.

Materials also do not include guidance to support educators in the effective implementation of enrichment or extension methods.

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

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 who may need additional support to reach proficiency. Materials include guidance to support educators in providing timely feedback during lesson delivery. For example, LiveLab alerts provide teachers with the ability 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 provides teachers with the ability to prioritize at-risk students and group students by current workspace to support multiple students at the same time.

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 at least two or more levels of language proficiency; materials do include embedded linguistic accommodations for at least one level of language proficiency.	1/4
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 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.

Materials include embedded linguistic accommodations to engage students in using increasingly more academic language for at least one level of language proficiency through use of the Glossary. For example, in Module 3: "Investigating Proportionality," Topic 1: "Similarity," MATHia Adaptive Problem-Solving: "Dilating Figures," students can click on a mathematical term to view both the definition and a visual representation, providing immediate support. Students can also toggle between English and Spanish throughout the materials.

Materials do not include embedded linguistic accommodations for more than one additional level of language proficiency.

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. While the materials provide general guidance for emergent bilingual (EB) support in the Help Center, no evidence of implementation in state-approved programs is provided.

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 specific suggestions or embedded guidance to support EB students in developing academic vocabulary, comprehension, and making cross-linguistic connections. In the *Texas Supplemental Math Overview,* the "Developing and Using Academic Mathematical Language" section in *Making Sense of Mathematics* 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, there is no evidence of guidance for support through oral and written discourse.

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 emergent bilingual students, and there are no additional embedded vocabulary support resources.

The materials do not provide students with opportunities to develop academic vocabulary through written discourse or foster making cross-linguistic connections through oral discourse. The materials consist 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	Materials do not include questions, tasks, or enrichment or 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.

Materials include 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)."

In Module 1, Topic 2, MATHia Adaptive Problem-Solving: "Geometric Components of Rigid Motions," Workspace 1: "Developing Definitions of Rigid Motions" and Workspace 2: "Exploring Rigid Motions and Dilations," students draw the rotational symmetries for a variety of polygons. For each rotational symmetry, students write a rotation function.

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.

In a Concept Builder Workspace for Geometry, students learn the formal definitions for *translation*, *reflection*, and *rotation* as rigid motions and are shown the function notation for each transformation. They then apply these definitions and notations to answer questions about other mathematical transformations. Next, students use an interactive Explore Tool to perform translations, reflections, rotations, and dilations. Students also describe sequences of geometric transformations that map one figure onto a congruent or similar figure. These tasks demonstrate an increase in rigor and complexity, leading to grade-level proficiency in the Geometry TEKS.

The materials also include Explore Tool activities that serve as enrichment and extension opportunities, allowing students to apply concepts in interactive ways that reinforce grade-level proficiency in Geometry.

While the "Features and Functionalities" article references above-grade-level TEKS, the student lessons do not include questions, tasks, or enrichment opportunities that lead to above-grade-level proficiency in the Geometry 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 MATHia Skillometer connects skills horizontally throughout the materials. For example, in Module 3, Topic 1, students work in the Mastery Workspace. The skills demonstrated in this lesson include indicating part of a given ratio, determining the *x*- or *y*-distance between given points, and calculating the individual coordinate of an intermediate point, which connects patterns and big ideas throughout the course.

Materials provide coherence horizontally with the structure of the "Scope and Sequence," connecting the big ideas in Geometry. For example, students first learn about angle relationships using parallel lines and transversals and then apply those concepts to prove triangle congruence, explore angle relationships in circles, and prove properties of quadrilaterals. Each component builds on the previous concept as students progress through the unit.

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 coherence vertically by connecting big ideas and key characteristics across grade levels and courses. The "Geometry Scope and Sequence Overview Video" explains that the materials progress from reasoning to investing, and then applying concepts, including the application of big ideas and relationships from previous courses.

Topic Readiness Resources include MATHia Workspaces and MATHstream Videos aligned to prerequisite standards from previous courses necessary for topic mastery and connect patterns and big ideas across grade levels, including the application of formal arguments learned in Geometry to problem applications in Algebra II. For example, in Module 3, students are exploring proportionality, which connects to solving rational equations in Algebra II.

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 include a "Scope and Sequence" that supports connections to prior knowledge across the concepts and procedures in the current course. The "Correlation Guide" identifies all TEKS and indicates the lessons and activities where these standards are addressed, demonstrating how they connect throughout the course.

Within the Intervention Resources provided in each module, Topic Re-Engagement materials offer opportunities to practice concepts and procedures through targeted lessons aligned to current and future learning standards.

"Appendix B" of the *Texas Supplemental Math Overview* demonstrates 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.

Materials provide spaced retrieval opportunities with previously learned concepts across the learning pathways. For example, in Module 3, Topic 1, when students work in the "Partitioning Segments Proportionally" Mastery Workspace, they practice skills such as indicating part of a given ratio, determining the *x*- or *y*-distance between points, and calculating the coordinates of an intermediate point.

MATHia Workspaces, located in the Intervention Resources, support prerequisite skills and reengagement with concepts related to the topic. For example, in Module 2, Topic 1: "Topic Readiness Resources," students practice the previously learned skill of classifying two-dimensional figures.

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

Materials provide a variety of interleaved practice opportunities with previously learned skills and concepts across learning pathways. For example, in Module 1, Topic 2, MATHia Adaptive Problem-Solving: "Geometric Components of Rigid Motions," Workspaces 1 and 2, students learn the formal definitions for *translation*, *reflection*, and *rotation* as rigid motions and are shown the function notation for each transformation. Then, they apply these definitions and notations to answer questions about other mathematical transformations. Next, students use an interactive Explore Tool to perform translations, reflections, rotations, and dilations, which provides an opportunity for mixed skill practice.

In the Mastery Workspace for Geometry, students use a diagram tool to draw the rotational symmetries, if they exist, for a variety of polygons. For each rotational symmetry, students write a rotation function, providing an interleaved practice opportunity.

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.

Materials include questions that provide opportunities for students to interpret, analyze, and evaluate complex, real-world situations. For example, in Module 3, Topic 1, MATHia Adaptive Problem-Solving: "Partitioning Segments in Given Ratios," Workspace 1 students use partitioning segments to help Jack find a treasure that is 1/3 the distance between the swings and the slide. The video prompts students to analyze the situation, specifically whether the location is 1/3 the distance from the swings or 1/3 the distance from the slide. Students then interpret and evaluate a variety of situations based on given ratios and line segments.

Materials include tasks that provide opportunities for students to interpret, analyze, and evaluate mathematical concepts and complex, real-world situations. For example, in Module 3, Topic 2, MATHia Adaptive Problem-Solving: "Sine, Cosine, and Tangent, Using Multiple Trigonometric Ratios to Solve Problems," students evaluate measures of sides and angles of right triangles. The tasks require students to interpret and analyze the situation to decide which process to use, including trigonometric ratios, the Pythagorean Theorem, and the Triangle Sum Theorem.

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

Materials include questions and tasks that provide opportunities for students to create representations of mathematical situations. For example, in Module 1, Topic 2, MATHia Adaptive Problem-Solving: "Geometric Components of Rigid Motions, Exploring Rigid Motions and Dilations," students use the interactive Explore Tool to create representations of translations, reflections, rotations, and dilations.

Materials do not provide questions or tasks that prompt students to create concrete models of mathematical situations using virtual or physical tools.

The "Features and Functionality" article references opportunities to create, use, and connect concrete representations of mathematical ideas; however, the materials lack prompts for students to do that.

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

Materials include questions that provide opportunities for students to apply conceptual understanding to new problem situations. For example, in Module 3, Topic 2, MATHia Adaptive Problem-Solving: "Sine, Cosine, and Tangent, Using Multiple Trigonometric Ratios to Solve Problems," students evaluate measures of sides and angles of right triangles and then interpret and analyze right triangle situations to determine which process to use—trigonometric ratios, the Pythagorean Theorem, and/or the Triangle Sum Theorem. Each problem presents a new situation and context requiring the application of conceptual understanding.

Materials include tasks that provide opportunities for students to apply conceptual understanding to new problem situations and contexts. For example, in Module 5: "Making Informed Decisions," Topic 2: "Computing Probabilities," students apply and extend probability concepts to explore expected value and conditional probability. They use combinatorial techniques, such as combinations and permutations, to construct and reason with large sample spaces. Students interpret and analyze simple and complex event interactions to derive information about probabilities in new 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.

Materials provide tasks that are designed to build student fluency necessary to complete grade-level mathematical tasks. For example, in Module 1: "Reasoning Shapes," Topic 1: "Using a Rectangular Coordinate System," MATHia Adaptive Problem-Solving: "Distance on the Coordinate Plane, Deriving the Distance Formula," students answer questions in multiple contexts to build fluency with the Pythagorean Theorem. Materials provide tasks that are designed to build student automaticity necessary to complete grade-level mathematical tasks. For example, automaticity is built into finding angle measurements formed by a transversal in Module 2: "Establishing Congruence," Topic 2: "Justifying Line and Angle Relationships," MATHia Adaptive Problem-Solving: "Lines Cut by a Transversal." In the first Workspace, "Classifying Angles Formed by Transversals," students follow worked examples and complete sorting activities as they learn to identify angles and angle pairs formed by lines cut by a transversal. These skills are applied in later units with increasing difficulty.

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 flexible mathematical procedures in Module 3: "Investigating Proportionality," Topic 2: "Trigonometry," MATHia Adaptive Problem-Solving: "Sine, Cosine, and Tangent, Using One Trigonometric Ratio to Solve Problems" and "Using Multiple Trigonometric Ratios to Solve Problems," where students calculate the measures of sides and angles of right triangles using trigonometric ratios, the Pythagorean Theorem, and the Triangle Sum Theorem in both contextual and abstract problems. Students practice flexibility by choosing among multiple strategies to solve each problem.

Materials provide opportunities for students to practice efficiency and accuracy in mathematical procedures. For example, in the Geometry course, students are asked to identify smaller shapes within a composite figure, determine their dimensions, apply the appropriate area formulas, and add those areas to find the area of the composite figure. If a student responds incorrectly at any point, MATHia provides hints and guidance to ensure students respond accurately before advancing to the next practice question or topic.

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 practice the application of efficient, flexible, and accurate mathematical procedures through learning pathways. For example, in "Understanding Parallelograms," students are given the properties of parallelograms and use this information to determine the side parallel to a given side, as well as the sides or angles that are congruent to a given side or angle. Students then determine a missing statement to prove that a quadrilateral is a parallelogram using the Parallelogram/Congruent-Parallel Side Theorem. Finally, students identify quadrilaterals by the properties of their sides, angles, and diagonals. Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures through learning pathways. For example, in "Determining Parts of Quadrilaterals and Parallelograms," students are given a parallelogram and asked to calculate the lengths of the bisected diagonals, the measures of the angles, and the lengths of the opposite side and base, requiring evaluation of various mathematical representations and models.

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

Materials contain guidance to support students in selecting the most efficient approaches when solving mathematics problems. For example, in Module 1: "Reasoning with Shapes," Topic 3: "Congruence Through Transformations," MATHia Adaptive Problem-Solving: "Triangle Congruence Theorems, Using Triangle Congruence," students use SSS, SAS, AAS, and ASA congruence theorems to determine whether two triangles are congruent. They then prove two triangles are congruent by the same group of theorems when given statements about the geometric figures shown. Finally, students complete a two-column proof to identify the reasons for given congruency statements.

Materials include embedded supports, such as Just-in-Time Hints and On-Demand Hints within MATHia, that guide students toward selecting efficient approaches to problem-solving.

5.3 Balance of Conceptual Understanding and Procedural Fluency

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.3a	Materials do not explicitly state how the conceptual emphases of the TEKS are addressed.	1/2
5.3b	Materials do not include questions and tasks that provide opportunities for students to use concrete models, as required by the TEKS.	2/3
5.3c	Materials do not include supports for students in connecting, creating, defining, or explaining concrete models to abstract concepts; materials do not include supports for students in creating, defining, or explaining representational models to abstract concepts.	1/6
—	**TOTAL**	4/11

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

Texas Supplemental Math Overview describes how procedural skills are built through adaptive, targeted practice in Concept Builder and Mastery Workspaces, gradually increasing in complexity until mastery is reached.

Materials do not explicitly state how the conceptual emphasis of the TEKS is addressed due to the lack of TEKS-specific MATHstream instructional support. The course includes MATHstream Videos only for prior courses.

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 and abstract models as required by the TEKS. For example, in Module 1: "Reasoning with Shapes," Topic 1: "Using a Rectangular Coordinate System," MATHia Adaptive Problem-Solving: "Slopes of Parallel and Perpendicular Lines," students engage with an animation demonstrating that rotating a point (x, y) ninety degrees counterclockwise results in coordinates $(-y, x)$. Students answer questions to discover that slopes of perpendicular lines are negative reciprocals and that slopes of parallel lines are equal, then apply this knowledge by using graphs of functions to solve real-world problems involving parallel and perpendicular lines.

Materials include questions that provide opportunities for students to use pictorial representations and abstract models in Module 4: "Connecting Geometric and Algebraic Descriptions," Topic 2: "Circles and Cross-Sections," MATHia Adaptive Problem-Solving: "Cross-Sections," Workspace1: "Visualizing Cross

Sections of 3-D Shapes," when students are asked to use a pictorial representation of a 3-D figure to make connections between its base(s) and lateral faces with its two-dimensional cross sections. To complete this task, students must apply abstract models to pictorial representations of geometric figures and make meaningful connections about mathematical relationships.

The "Features and Functionality" 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.

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

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

Materials include supports for students in connecting representational models to abstract concepts as required by the TEKS. For example, in Module 2: "Establishing Congruence," Topic 1: "Composing and Decomposing Shapes," MATHia Adaptive Problem-Solving: "Using Circles to Make Conjectures, Exploring the Inscribed Angle Theorem," students use the Explore Tool to investigate measures of central and inscribed angles sharing the same intercepted arc. Each investigation asks students to make and test conjectures, supporting the connection between the representational model and abstract concepts. In the "Determining Central and Inscribed Angles in Circles" activity, students apply the Inscribed Angle Theorem to find angle measures.

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 scaffolding and support for students' use of academic vocabulary in context when communicating with peers and educators; therefore, no educator guidance for the scaffolding and support is present.	0/2
5.4c	All criteria for guidance met.	1/1
5.4d	Materials do not provide opportunities to hear math language with peers; therefore, no embedded guidance to facilitate mathematical conversations is present.	0/2
5.4e	Materials do not include embedded guidance to anticipate a variety of student answers, including exemplar responses to questions and tasks; materials include embedded guidance to support and/or redirect inaccurate student responses.	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.

Materials do not provide opportunities for students to develop academic mathematical language using manipulatives; materials include opportunities for students to develop academic mathematical language using visuals, manipulatives, or other language development strategies. For example, in Module 1: "Reasoning with Shapes," Topic 1: "Using a Rectangular Coordinate System," MATHia Adaptive Problem-Solving: "From Informal to Formal Geometric Thinking, Introduction to Geometric Figures," students watch a video that shows real-world pictures with geometric concepts highlighted. The video then shows definitions and visual representations of a point, line segment, ray, angle, and line. Students complete statements applying these definitions. The transition from real-world examples to geometric representations with written definitions provides opportunities for students to develop academic mathematical language using visuals. Another example of opportunities for students to develop academic mathematical language is in Module 2: "Establishing Congruence," Topic 1: "Composing and Decomposing Shapes," MATHia Adaptive Problem-Solving: "Using Circles to Make Conjectures, Introduction to Circles," when students watch an animation defining terminology for several parts of a circle. Next, students identify chords, tangents, points of tangency, and secants of circles. Then, students sort inscribed, circumscribed, and central angles. Students also identify intercepted arcs in a circle. Finally, students classify minor and major arcs as well as semicircles, applying their newly developed academic mathematical language.

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 do not include scaffolding and support for students' use of academic vocabulary in context when communicating with peers and educators; therefore, no educator guidance for the scaffolding and support is present. The Help Center offers scaffolding support in MATHia; however, it is not specific to academic language.

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. Besides multiple examples found in the materials through the MATHstream lessons referenced in our evidence guide, the materials also provide a 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. The article also guides the educator to model 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 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.

Materials do not include embedded educator guidance to facilitate mathematical conversations allowing students to hear, refine, and use math language with 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.

Materials do not provide anticipated answers to questions or tasks; therefore, there is no embedded guidance to anticipate a variety of student answers.

Materials include embedded guidance to support and/or redirect inaccurate student responses. For example, the digital platform includes automated feedback on student responses as seen in Module 2: "Establishing Congruence," Topic 1: "Composing and Decomposing Shapes," MATHia Adaptive Problem-Solving: "Triangle Sum and Exterior Angle Theorem, Introduction to Triangle Sum and Exterior Angle

Theorems." Students must fill in the blank: "The angle measure of a straight line is ___." If students select the wrong answer, instead of just marking it incorrect, the program redirects by saying, "Try again. The angle formed by a straight line is equal to half the measure of a circle."

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	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.

Materials include TEKS process standards integrated appropriately into MATHia practices. For example, in Module 1: "Reasoning with Shapes," Topic 2: "Rigid Motions on a Plane," MATHia Adaptive Problem-Solving: "Geometric Components of Rigid Motions, Developing Definitions of Rigid Motions and Exploring Rigid Motions and Dilations," the materials connect formal definitions of *translation*, *reflection*, and *rotation* as rigid motions to function notation for each transformation. Students apply these definitions and notations to answer questions about other transformations. They also use an interactive Explore Tool to perform translations, reflections, rotations, and dilations and communicate sequences of geometric transformations that map one figure onto a congruent or similar figure. Materials include TEKS process standards integrated appropriately into MATHstream Videos. For example, in Module 4: "Connecting Geometric and Algebraic Descriptions," Topic 1" "Circles and Volume," MATHia Adaptive Problem-Solving: "Similarity Relationships in Circles, Relating Arc Length and Radius," students explore the difference between degree measure and length of an arc. They calculate the fraction of a circle's circumference that an arc occupies and write expressions to calculate arc length. Students calculate arc length given radius or diameter, relate arc length to radius, and are introduced to radians and the theta symbol. Finally, students practice determining circle measurements using the formula $\theta = s/r$.

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

Texas Supplemental Math Overview "Appendix A" describes how process standards are incorporated and connected throughout MATHia and MATHstream, utilizing real-world scenarios, multiple representations, making predictions, and testing hypotheses.

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. While a correlation guide including the content TEKS is provided for each lesson, the TEKS process standards are not included.

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 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.

Materials provide opportunities for students to think mathematically. For example, in Module 3: "Investigating Proportionality," Topic 1: "Similarity," MATHia Adaptive Problem-Solving: "Applications of Similar Triangles," Workspace 1: "Calculating Corresponding Parts of Similar Triangles," students calculate corresponding parts of similar triangles using proportional reasoning. The workspace includes a step-by-step example with embedded Hints that address common misconceptions and support mathematical thinking.

Materials provide opportunities for students to persevere through solving problems and make sense of mathematics through the student-directed use of the Hint feature in MATHia and MATHstream. The Hint feature in MATHia and MATHstream provides step-by-step guidance intended to scaffold learning by breaking down complex problems into manageable parts, offering optional explanations, visuals, or cues to support student understanding as they work through a task. However, in MATHia, a student can click the Next button three times within a Hint, and the program will provide the correct answer without requiring the student to do any work or attempt a response. Students are not prompted to attempt a response before receiving the answer, and the program does not alert the teacher that additional support may be needed. This significantly limits the effectiveness of the Hint feature in providing opportunities for students to persevere through solving problems or to make sense of mathematics.

The Help Center article "Building on Student Strengths Through a Variety of Problem Types" states, "MATHbook is a record of student thinking, reasoning, and problem solving, which includes a variety of problem types to actively engage and challenge students. Activities are sequenced to ensure investigation, classification, worked examples, peer analysis, and real-world and mathematical problem-solving." However, Geometry does not include access to the MATHbook component. As a result, students are not provided a space within the supplemental materials to record or reflect on their thinking, reasoning, or problem solving.

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, explaining, and justifying that there can be multiple ways to solve problems and complete tasks. The "Making Sense of Mathematics" article 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" article 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. It 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 do not provide opportunities for students to write about math with peers or educators.

6.2 Facilitating Productive Struggle

GUIDANCE	SCORE SUMMARY	RAW SCORE
6.2a	Materials do not include opportunities for students to share and reflect on their problem-solving approaches; therefore, educator guidance for guiding students in their responses is not present.	0/8
6.2b	Materials do not include prompts to support educators in providing explanatory feedback based on 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.

Materials do not include opportunities for students to share and reflect on their problem-solving approaches, including explanations, arguments, justifications, and multiple points of entry; therefore, educator guidance for supporting students in their responses is not present.

Materials include tools, such as animations, that allow students to observe various solution methods visually; however, the materials do not include prompts for students to discuss or write about their reflections, including explanations, arguments, justifications, or multiple points of entry. The teacher would need to create and implement their own opportunities for students to share and reflect on their problem-solving approaches. Materials do not include a teacher's guide, implementation guide, or any other resource to support this process.

The "Instructional Tools in the Student MATHia Software" Help Center article outlines the embedded features of the MATHia program that are designed to support student learning. However, these features do not assist students in sharing and reflecting on their problem-solving approaches, nor do they provide guidance for educators in facilitating this sharing or reflection. A publisher-provided 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. Together, these instructional tools give educators structured, embedded ways to facilitate student explanation, justification, and reflection, reinforcing the idea that multiple valid approaches exist." However, support is not provided for educators on how to use these features to guide students to share and reflect on their problem-solving approaches, including explanations, arguments, justifications, and multiple points of entry.

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 to support educators in providing explanatory feedback based on anticipated misconceptions.

Materials include prompts and guidance to support educators in providing explanatory feedback based on student responses. For example, in Module 1: "Reasoning with Shapes," Topic 3: "Congruence Through Transformations," the Intervention Resources SkillStream Video "Determining the Number of Possible Triangles for Given Conditions" tasks students with determining whether it is possible to form a triangle using segments with given measurements. At the 5:16 mark, if students respond incorrectly, the program plays a two-minute video providing support. In the video, the teacher explains, "That is not greater than 19.5, so that will not form a closed triangle." These tips serve as explanatory feedback without providing answers.

Materials include a real-time view of student progress in MATHia, identifying students who are stuck, idle, or in need of support. Teachers can also access the solution to a question using the Solve It feature. However, these features do not include prompts or guidance to support educators in providing explanatory feedback based on common misunderstandings, nor do they offer support to help educators prepare for anticipated misconceptions. Educators must independently analyze progress data or sample solutions to deliver actionable feedback.

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