# Carnegie Learning, Inc.

Supplemental English Mathematics, 6

Texas Supplemental Math Solution Grade 6–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% | 136 | 5 | 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 | 28 out of 38 | 74% |
| 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 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 "Composing and Decomposing," the overview details the four topics that will be covered: factors and multiples, positive rational numbers, shapes and solids, and decimals. The overview also provides the learning objective connection to the TEKS by stating that students will "strengthen their fraction and decimal operation skills and use this to solve problems involving the area of various shapes and volume of rectangular prisms."

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 "Writing Equivalent Expressions through the Distributive Property, Commutative, and Associative Properties," the materials provide the median time spent on this lesson as 23–46 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. | 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.

For example, in Module 4, Topic 4, in MATHia Adaptive Problem-Solving, "Understanding Financial, College, and Career Options," on the first page, there is a pop up for the term "credit card" that provides a definition of "a card that allows a person to borrow a certain amount of money and pay the borrowed money back at a later time."

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 6 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 Module 2, Topic 2, MATHstream Videos "Lesson Stream: Benchmark Percents," students are asked to work through questions that vary in complexity levels. The lesson aligns with the TEKS and begins by having students compare two numbers: a percent and a decimal. The lesson then guides students through an explanation of ordering 11 numbers that include fractions, decimals, and percents and reinforces their understanding of the lesson by having them attempt a problem and use a drag-and-drop item type to display their answer.

## 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.

The 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 6 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 6 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 6, Module 1, Unit 1, the MATHstream Videos include a workspace question that gives students feedback as they submit their answers, using the Coins For Effort and offering simple explanations 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. For example, Module 1, Topic 4 "Multiplying Decimals" directs educators to choose the "Exploring Decimals Facts" lesson, which targets Grade 5 TEKS for students who may require practice in the previous grade level.

### 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 1, Topic 2, Intervention Resources "Readiness Resources," students are shown and encouraged to use models to represent their conceptual understanding of multiplying fractions, mixed numbers, and whole numbers.

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 grade 6 materials include multi-tiered intervention methods for various types of practice. Module 3, Topic 1, Lesson 4 "Four Quadrants of the Coordinate Plane" guides students through a 14-minute video, and a virtual teacher named Ms. Henson introduces a lesson on all four quadrants of the coordinate

plane, along with essential vocabulary and examples (TEKS 6.11A). The video provides an opportunity for students to practice independently. The video 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.

MATHstream Videos in grade 6 provide multi-tiered intervention methods for various structures. For example, the Module 4, Topic 2, Lesson 2 MATHstream Video titled "Writing and Solving One-Step Addition Equations" can be used in a whole-group classroom setting through projection. MATHstream Video format includes features for educators to pause and explain the concept of using a double number line to solve equations further if needed. MATHstream Video format uses a multi-tiered intervention method that allows students to work independently or in small groups on their laptops. Students can stop the video and replay sections for repetition or additional clarification.

The grade 6 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 receive the same lessons and activities without variation based on proficiency levels. For example, in Module 4, Topic 2, Lesson 5 "Greater than Most," students solve inequalities and graph them on a number line. While the lesson concludes with a question prompting students to create a real-world scenario using inequality statements, this is part of the core task rather than a distinct enrichment or extension method. The materials do not provide differentiated opportunities for students who have mastered grade-level content.

The materials also do not include guidance to support educators in effectively implementing enrichment or extension. For example, no options are 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 3, the MATHia Adaptive Problem-Solving "Using Models to Understand Integers" video 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. Within the modules is a tab that says "Tools," in which students can access a glossary to assist them with unfamiliar terms.

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 in rigor and complexity for grade-level proficiency in the mathematics TEKS. For example, in Module 1, Topic 3, MATHia Adaptive Problem-Solving, the "Constant of Proportionality in Multiple Representations" video asks students to convert between measurement systems, including the use of proportions and the use of unit rates, providing questions and tasks that increase in rigor and complexity, leading to grade-level proficiency in the conversion between different measurements to solve for real-world problems.

The MATHstream Videos also provide enrichment and extension activities that increase in rigor and complexity and lead to grade-level proficiency in the mathematics TEKS. For example, the "LessonStream:

Similar Figures and Calculating with Scale Factor" MATHstream Video uses students' knowledge of proportions to guide them through using proportions to solve for missing measurements in scale factors, providing questions and tasks that increase in rigor and complexity, leading to grade-level proficiency in using proportions to solve for real-world problems.

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 6" video in the "Course Navigator Tab," the overview explains how topics are interconnected in the "Texas Grade 6 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, the overview in Module 4 states, "as in Relating Quantities [Module 2], this module begins with the building blocks of algebra: algebraic expressions."

### 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 1, Topic 4, the overview states, "In this topic, students review addition and subtraction of decimal numbers and continue operating with decimals, with the eventual goal of fluency. Students also review whole-number and decimal multiplication and learn how to long divide with whole numbers and decimals."

### 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 1, Topic 2, Lesson 4, the MATHstream Video presents TEKS 7.3B, "Division of fractions," and also embeds TEKS 6.3A in the MATHia Adaptive Practice, "Multiplying the reciprocal of fractions is equivalent to dividing fractions."

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 4, Topic 2, MATHia Adaptive Problem-Solving "Solving One-Step Inequalities" demonstrates coherence with activities that connect the TEKS 6.10A model and solve one-variable, one-step equations and inequalities, using future grade-level concepts and procedures, such as TEKS 7.10A, which involves writing one-variable, two-step equations and inequalities.

## 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 various course units and modules. For example, in grade 6, students deepen their understanding of converting measurement units through ratio reasoning. The unit begins with an introduction to ratios initially, and by Topic 3 "Unit Rates and Conversions," students are applying their reasoning and previously learned skills and logic to convert units.

### 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 2, Topic 1, Lesson 6, students determine unknown ratios using a specified strategy or the strategy of their choice. Students contrast representations of additive and multiplicative relationships in this unit and then create a graphic organizer to show how students can model equivalent ratios through four representations: scale up/scale down, tables, double number lines, and graphs.

# 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 | All criteria for guidance met | 2/2 |
| 5.1c | All criteria for guidance met. | 1/1 |
| — | **TOTAL** | 6/6 |

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

The materials for grade 6 include questions and tasks that provide opportunities for students to interpret and analyze mathematical concepts in complex real-world situations throughout various units and modules. For example, in Module 2, Topic 1, Lesson 5 "They're Growing," students investigate rectangles with a common ratio and analyze a ratio. In Module 5, Topic 1 "Interpreting Dot Plots," students interpret, create, and analyze dot plots as they learn about the features of the plot type. In Topic 1, MATHia Adaptive Problem-Solving "Problem-Solving with Equivalent Ratios and Rates," students use ratio tables to analyze and evaluate concepts in real-world situations.

The materials for grade 6 include questions and tasks that provide opportunities for students to interpret and evaluate models and representations. For example, in Module 5, Topic 1, MATHia Adaptive Problem-Solving "Interpreting Box Plots," students interpret vertical and horizontal box-and-whisker plots to understand the relationship between the shape of the display and the spread of the data set.

The materials for grade 6 include questions and tasks that provide opportunities for students to interpret, analyze, and evaluate mathematical concepts in complex real-world situations throughout various units and modules. In Grade 6, in Module 2, Topic 1, Lesson 5 "They're Growing," students investigate and evaluate rectangles with a common ratio and students analyze a ratio. The models are connected and used to solve real-world problems and provide the students an opportunity to evaluate models and representations for mathematical concepts and teaching.

### 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 1, Topic 4, Lesson 4 MATHstream Video "Volume of Rectangular Prisms," students explore volume by representing filling a prism with cubes, allowing them to create a representation of a mathematical situation.

The materials include many opportunities to create representations of mathematical situations and provide opportunities, questions, or tasks to develop concrete models of mathematical situations. For example, on page 5 of the "Features and Functionality" document, the publisher gives examples of concrete modeling by describing the use of exploratory tools and animations to construct geometric formations to model proportional relationships.

### 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 2, Topic 2, Lesson 3, MATHia "Fraction, Decimal, Percent Conversions," students apply their understanding of equivalent fractions, decimals, and percents to new real-world situations.

## 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 6 materials provide tasks designed to build student automaticity necessary to complete grade-level mathematical tasks. In Module 3, Topic 2, Lesson 4, the materials guide students with multiple examples of subtracting integers on a number line during the 13-minute MATHstream Video lesson. Then, the materials provide tasks designed to build the fluency necessary to complete grade-level mathematical tasks. In the MATHia Workspace titled "Developing Algorithms for Adding and Subtracting Integers," in Module 3, Topic 2, students build fluency by practicing the concept previously taught in the MATHstream Videos on adding and subtracting integers on a number line.

The materials provide tasks to develop the fluency necessary to complete grade-level mathematical tasks. For example, in Module 1, Topic 3 "Shapes and Solids," students build on their prior knowledge of volume of cubes and rectangular prisms to be fluent in calculating volume using rational numbers.

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

The materials provide opportunities for students to practice the application of efficient mathematical procedures for problem-solving. For example, in Module 1, Topic 3, Lesson 4 "Length, Width, and Depth," students begin this module by examining the relationships between numbers and shapes, using area models to solve problems. They strengthen their skills with fraction and decimal operations and then use these skills to solve problems involving the area of various shapes and the volume of rectangular prisms.

In the grade 6 materials, students can practice the application of efficient and flexible mathematical procedures throughout the learning pathway. For example, in Module 2, Topic 1, Lesson 3, students learn and practice equivalent ratios with modeling. They practice scaling up and down to determine equivalent fractions, and finally, they learn and practice modeling equivalent fractions with double number lines. These multiple opportunities show students efficient and flexible methods to practice this mathematical procedure.

The grade 6 materials provide students with the opportunity to practice accurate mathematical procedures throughout learning pathways. For example, the Module 2, Topic 1 MATHia Adaptive

Problem-Solving videos allow students to practice skills learned in a variety of ways, such as comparing ratios with graphs, tables, and various representations. This allows students to practice accurate mathematical procedures.

### 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. In Module 4, Topic 2, MATHia Adaptive Problem-Solving, students use an interactive balance to explore representing and solving one-step addition and multiplication equations. Students are encouraged to determine solutions using the interactive model. Students are guided through each step of the problem-solving method to obtain efficiency.

The materials provide opportunities for students to evaluate mathematical representations, models, strategies, and solutions for flexibility. For example, in Module 1, Lesson 3, MATHstream Video "Investigating Areas of Triangles and Quadrilaterals," students use prior knowledge of calculating the area of a rectangle to calculate the area of a parallelogram and triangles. In calculating the area of triangles, students practice flexibility by rotating the triangle model, selecting any side of a triangle as the base, and selecting the height measurement as the side perpendicular to the base. The materials provide opportunities for students to evaluate mathematical representations, models, strategies, and solutions for accuracy.

The materials include various workspaces in which the students evaluate completed 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 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 | All criteria for guidance met. | 3/3 |
| 5.3c | The materials do not include support for students in creating, defining, and explaining concrete and representational models to abstract (symbolic/numeric/algorithmic) concepts as required by the TEKS. | 2/6 |
| — | **TOTAL** | 7/11 |

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

Grade 6 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 6, in Module 1, Topic 3, MATHia Adaptive Problem-Solving "Developing Area Formulas," students watch animations and answer questions to derive the formulas used to calculate the areas of parallelograms, triangles, and trapezoids. They use the formulas to represent area problems as equations using given dimensions in real-world scenarios.

Questions and tasks in grade 6 materials provide opportunities for students to use concrete models, pictorial representations, and abstract models as required by the TEKS. For example, in Module 5, Topic 1, Lesson 3, MATHstream Video "Creating and Analyzing Histograms," students use a data table as a

concrete model of the number of state parks in a list of specific states to create a grouped frequency table and then construct a histogram from the grouped frequency table as a pictorial representation.

### 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 questions and tasks for students to use pictorial representations and abstract models as required by the TEKS. For example, in grade 7 in Module 2, Topic 2, Lesson 1, MATHstream Video "We are Family," students use a hundredth grid to model decimals and then write the percent equivalent. The video provides students with multiple methods to use pictorial representations and models.

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 6 in Module 1, Topic 3 "Shapes and Solids," under MATHstream, LessonStream "Volume of Rectangular Prisms," the video introduces the term *polyhedron* and uses a visual to develop academic language of *face*, *edge*, and *point* as they relate to math. 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.

For example, in grade 6, in Module 1, Topic 1, Adaptive Problem-Solving "Writing Equivalent Expressions Using the Distributive Property," Workspace "Exploring the Distributive Property with Numeric Expressions," students use the explore tool to investigate number sentence composition and decomposition. They are then prompted to apply the mathematical language and academic vocabulary in discourse, such as "Consider what happens as you move the slider. Consider what happens as you move the handle."

## 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/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 6, in the "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.

### 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 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. For example, in Module 1, Topic 1, MATHia Adaptive Problem-Solving "Identifying Common Factors and Common Multiples," students are asked to utilize exploration tools in the workspace and mathematically think about decomposing the sum of two numbers. The students are required to solve the problems by using the factor and a sum.

The materials provide opportunities for students to persevere through solving problems. In Module 3, Topic 1, MATHia Adaptive Problem-Solving "Exploring Symmetry on the Coordinate Plane," students use the Explore Tool to investigate the coordinate plane. As they work through solving problems, hints are available if they struggle, and the tools highlight keywords and areas on the coordinate plane to help them persevere through solving problems.

The materials provide opportunities to make sense of mathematics. For example, in Module 1, Topic 3, MATHia Adaptive Problem-Solving, Workspace "Triangle Properties and Triangle Sum Theorem," the second question provides students four sets of angle measurements, requiring the students to determine if the measurements can form a triangle or not, and then drag the measurements to two different selection boxes with the topics "Can represent a triangle" or "Cannot represent a triangle." The material then gives the students two angle measurements and asks them what the measurement of the third angle is, allowing them 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 various problems and complete multiple tasks. For example, in Module 4, Topic 3, MATHia Adaptive Problem-Solving "Multiple Representations of Equations" and "Problem-Solving Using Multiple Representations,"

the materials support students to develop the understanding that there are multiple ways to represent problems in the first quadrant. Given a scenario, students complete a table and then plot the points from the table. The materials explain that numerical relationships can be represented verbally, in a table, or with a graph.

In Module 3, Topic 2, MATHia Adaptive Problem-Solving, Workspace "Understanding Opposites," students use both number lines and two-colored counters to model and understand addition, subtraction, and multiplication of integers. Further, the students develop the rule for finding the sum, difference, and product of integers, allowing the students to understand and explain that they can use number lines, counters, or the rule for solving integers.

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 4, Topic 1, MATHia Adaptive Problem-Solving "Writing and Evaluating Exponent Expressions," students watch an animation explaining how an expression with an exponent is called a power. The students then complete a table where they have to identify the base, exponent, and single value. If a student reverses the numbers and enters the exponent as the base, the student receives immediate feedback and prompts, such as "This is the exponent. Enter the base." 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 provide prompts to support educators in providing explanatory feedback based on anticipated misconceptions. For example, the materials do not provide educators with a way to respond when students share misconceptions about the content.