Great Minds PBC

Supplemental English Mathematics, 3
Math Catalyst Texas, Grade 3

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Supplemental	**9798894176451**	**Digital**	**Static**

Rating Overview

TEKS SCORE	TEKS BREAKOUTS ATTEMPTED	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	51	1	Flags Not in Report	Not Applicable	0

Quality Rubric Section

RUBRIC SECTION	RAW SCORE	PERCENTAGE
1. Intentional Instructional Design	21 out of 23	91%
2. Progress Monitoring	18 out of 20	90%
3. Supports for All Learners	36 out of 36	100%
4. Depth and Coherence of Key Concepts	9 out of 16	56%
5. Balance of Conceptual and Procedural Understanding	37 out of 38	97%
6. Productive Struggle	17 out of 19	89%

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	All criteria for guidance met.	5/5
1.1b	All criteria for guidance met.	3/3
1.1c	All criteria for guidance met.	2/2
1.1d	All criteria for guidance met.	2/2
1.1e	All criteria for guidance met.	2/2
—	**TOTAL**	14/14

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 "Alignment Guides" organized by the following concept strands: "Early Numeracy," "Place Value," "Addition," "Subtraction," "Multiplication," "Division," and "Fractions as Numbers." Each strand presents a vertical alignment of concepts from K–5, demonstrating increasing complexity. The *Strand by Grade Scope and Sequence* document reinforces this vertical progression by stating that the concepts within each strand build upon one another to create a ladder of mathematical understanding, unbound by the constraints of grade-level standards.

Each "Alignment Guide" includes a chart listing the relevant Texas Essential Knowledge and Skills (TEKS) (numbered and defined), "Corresponding lessons," "Mathematical Process Standards," and English Language Proficiency Standards (ELPS) listening, speaking, reading, and writing competencies.

The "Progression of Mini Lessons" section before each unit provides a chart that portrays the rationale for learning paths across grade levels.

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

The materials include an *Implementation Guide* that outlines how to effectively use the program within a Multi-Tiered System of Supports (MTSS), addressing core instruction, supplemental intervention (Tier 2), and intensive intervention (Tier 3). A chart highlights how "Concept Mini Lessons" align with Tier 2 and

Tier 3 instruction, while "Practice and Application" support enrichment, extension, and skill reinforcement.

The *Implementation Guide* provides a sample schedule with time allotment, possible usage of each component, and teacher and student actions to support effective educator use.

The *Implementation Guide*'s section titled "Tiered Instruction Recommendations and Program Structure and Components" notes that this resource can be flexibly used across various instructional formats—whole-group, small-group, stations, spiral review, and games—making it adaptable to diverse classroom environments and learner needs.

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

The materials include a concept diagnostic for each assessment. The "Concept Diagnostic Assessment" can be used before or during instruction to collect data about a student's current understanding, skills, strengths, and areas for growth. The data collected from this assessment can be used to inform instruction and provide timely intervention. The "Progression Toward Proficiency Rubric" used for scoring each "Concept Diagnostic Assessment" includes the TEKS alignment for each item, along with the "Concept Mini Lesson" objective. The problems in the "Concept Diagnostic Assessment" are sequenced from simple to complex. Questions aligned to each objective are also included to facilitate making instructional decisions about skill entry points based on the data collected from the "Concept Diagnostic Assessment."

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

The *Implementation Guide* includes detailed information on "Concept Internalization." It provides protocols and guidance for unit and lesson internalization and a list of reflective questions for teachers to consider as they work through each such as, "Which objective is a good starting point for small-group instruction?" "What do my students already know?" "What can they already do?" "What do they need support with?"

The "Concept Guides" offer additional tools to support the internalization process. Each guide follows a consistent structure, beginning with a "Materials and Preparation" page that briefly overviews the concept and consolidates required supplies and student materials. Common student misconceptions are addressed with strategies for prevention or remediation. A "Progress Check" outlines examples of student proficiency and includes guiding questions aligned to each objective. The "Concept Mini Lessons" page introduces four starting points within the unit and provides a visual sequence of the lessons with models.

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

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

The *Implementation Guide* contains a section titled "Guidance for Leaders." This section contains questions that equip instructional leaders to proactively support educators in creating a classroom environment conducive to meaningful student engagement, learning, practice, and effectively implementing the components of *Math Catalyst Texas*.

1.2 Lesson-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.2a	Materials do not include detailed lesson plans with learning objectives, or assessment resources aligned with the ELPS.	5/7
1.2b	This guidance is not applicable to the program.	N/A
1.2c	All criteria for guidance met.	2/2
—	**TOTAL**	7/9

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.

Each lesson has a TEKS-aligned learning objective such as "Represent numbers to 100,000 in standard form, expanded form, and expanded notation," located in Objective 3.

The "Teacher Guide" allocates approximately 10 minutes for each objective lesson in every mini lesson. The "Progress Check" section before each unit contains progress checks aligned to TEKS, which can be used before, during, or after lessons, along with rubrics to evaluate proficiency.

The "Concept Guide" for each unit contains a list of teacher and student materials needed for lessons throughout the unit.

The materials do not include assessment resources or learning objectives aligned to the ELPS.

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.

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

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 "Teacher Guide" contains support for families in English and Spanish on the "Family Math/Matemáticas en familia" page. The page begins with a letter to families introducing the concept students will learn and the visuals or models students will encounter. For example, the "Family Math" page for composing, decomposing, and representing numbers includes three guiding questions for families to ask their students such as, "What is the largest unit in each number?" Each question includes a sample response that parents can use to guide discussion or listen for during conversation.

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	This is a static program and does not include digital assessments. Materials do not include digital assessments that 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.	Not Scored
2.1d	All criteria for guidance met.	4/4
2.1e	All criteria for guidance met.	4/4
—	**TOTAL**	12/12

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

Math Catalyst includes an "Assessment and Data Collection" section in the *Implementation Guide* that defines formative assessments and their purpose of informing instruction, identifying misconceptions, gauging progress, guiding instructional decisions, and helping educators adjust.

The materials include examples of how to utilize different formative assessments such as "Application Activities," "Project Check Tool" (pre- or post-assessment), "Think-Pair-Share" (under the application "Activities and Considerations'), "Read-Draw-Write Tool" (under the application "Activities, Structures, and Considerations"), and "Pause and Monitor Tool."

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

The materials use "Progress Checks" as their main instructional assessment. The "Progression Toward Proficiency Rubric" supports educators in determining proficiency for each task on the assessment. Students score either "Proficient," "Partially Proficient," or "Not Yet Proficient." The materials provide detailed guidance on how to look for and correct answers for each task.

Each "Progress Check" includes "About the Progress Check Tool," "Using the Progress Check Tool to Inform Instruction," and a "Teacher Tip" section. The "Progress Check" includes clear instructions for the teacher and students to follow. For example, on the "Represent Contextual Multiplication Progress

Check," question 1 states, "Use counters to model groups of 4 pears. Circle them. Complete the statement."

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.

The materials neither include digital assessments, nor offer printable versions or accommodations such as text-to-speech, content and language supports, or calculators that educators can enable or disable to support individual students.

Although the *Implementation Guide* describes assessment and data collection through tools like "Analyze Student Progress," the "Observational Data Recording Sheet," and the "Progress Check Tool," there are no digital assessments included in the program. The *Navigation Guide* states, "There are no digital components to this curriculum." Therefore, digital assessments with printable versions or accommodations are not available to educators.

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

Materials contain a "Concept Diagnostic Assessment" for each concept.

The problems in the "Concept Diagnostic Assessment" are sequenced from simple to complex. Item types on the assessments include multiple choice, number lines, place value charts, cards, counters to arrange, fill in the blank, and open response. Students are encouraged to show their work to provide additional insight about their thinking to the teacher.

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 a variety of TEKS-aligned formative assessments such as quick checks, quizzes, exit tickets, or embedded tasks within the lesson.

Quick checks at the end of each objective assess student mastery and include varying levels of complexity. For example, in grade 3, formative assessments include five questions, starting with a simple task of writing a division number sentence with given information and ending with solving a word problem. The student practice pages start with using concrete objects to divide, and move toward abstract thinking by solving word problems. Finally, the materials provide application questions where students answer division word problems in a game setting. They can also apply and analyze a real-world situation with "Solve a Task."

The materials include interactive item types within the "Progress Check Tool," which include plot the point, order numbers, fill in the blank, and multiple choice.

2.2 Data Analysis and Progress Monitoring

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.2a	Materials do not include instructional assessments that include a rationale for each correct and incorrect response.	1/3
2.2b	All criteria for guidance met.	1/1
2.2c	All criteria for guidance met.	2/2
2.2d	All criteria for guidance met.	2/2
2.2e	This guidance is not applicable to the program.	N/A
—	**TOTAL**	6/8

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

Materials include informal and formative instructional assessments, including "Progress Checks." These assessments include numerical scoring information and guidance for interpreting student performance, including rating students as "Not Yet Proficient," "Partially Proficient," and "Proficient," for each item included in assessments.

Materials do not include a rationale for each correct or incorrect response.

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

The materials provide guidance, including tasks and activities related to student performance on the "Progress Check." For example, in grade 3, in "Round to the Nearest Ten and Hundred," students answer five questions, and based on the level of proficiency, teachers can start students on one of four objectives, ranging from the use of a vertical number line or place value to round to the nearest ten or 100.

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

The materials include an "Observational Data Recording Sheet" that allows teachers to record individual students' anecdotal notes about each objective. The materials recommend that teachers use it often to inform their understanding of student performance.

The materials include a "Pause and Monitor Tool," where students monitor their progress and growth by shading in progress such as "Getting started," "On my way," or "I got it!" Students use this tracker throughout the concept or on a specific objective.

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.

The materials provide prompts to support educators in checking for understanding throughout the lesson. For example, in "Compose and Decompose Numbers to 100,000," Objective 1, there are prompts for teachers to conduct frequent checks for understanding throughout the lesson such as, "Can the student represent numbers to 100,000 by using place value disks and drawings in place value charts?", "Can the student use place value units to compose and decompose numbers to 100,000?", and "Can the student find the value of each place value unit?"

During the lessons, the materials provide guidance to support educators in conducting frequent checks for understanding through "Teacher Tips." For example, after students represent the number in unit form, guidance states, "Students can use unit form to represent a number in multiple ways. Consider having students decompose the number by using place value in other ways."

2.2e – If designed to be adaptive, materials provide 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 adaptive.

3. Supports for All Learners

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

3.1 Differentiation and Scaffolds

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.1a	All criteria for guidance met.	1/1
3.1b	All criteria for guidance met.	4/4
3.1c	All criteria for guidance met.	2/2
3.1d	Materials do not have a digital component therefore, they do not include digital materials include accommodations, including text-to-speech, content and language supports, and calculators that educators can enable or disable to support individual students.	Not Scored
3.1e	All criteria for guidance met.	2/2
—	**TOTAL**	9/9

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 guidance for educators when students need support in each "Concept Mini Lesson." For example, the "Concept Mini Lesson: Objective 3, Differentiation Support," states, "Some students may need support with drawing number lines. Consider providing number lines that are pre-partitioned or have some of the partitions."

In the "Concept Guide" in the "Multiplication Unit," the materials include explicit educator guidance to address a misconception that some students have pertaining to identifying how to multiply using the length and width of an area model versus inefficiently drawing each piece of the array individually. The materials provide explicit guidance to have students identify the length and width of the rectangle by sliding their finger along the top and side while saying the terms aloud.

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 supports in the "Language Support" section in the "Concept Guide" for each unit. For example, in the "Mini Lesson for Place Value, Objective 1," teachers describe how to compare the value of the digits in the largest unit when comparing two numbers while gesturing to the corresponding place value disks.

In the "Mini Lesson for Place Value, Objective 3," the materials provide explicit educator guidance to make an anchor chart utilizing the specific terms that will be needed for the lesson in order to pre-teach and develop academic vocabulary.

The materials provide explicit educator guidance to pre-teach unfamiliar terms in the text. For example, in Objective 1 of "Round Numbers to the Nearest Ten Using Vertical Number Lines," teachers are given explicit guidance to, "Consider formally naming the graduated cylinder if your students are not familiar with it, or use less specific terminology, such as container."

The "Concept Guide" includes "Key Terminology" cards, which include student-friendly definitions and visual representations that provide a flexible opportunity for pre-teaching and reinforcing academic mathematical language.

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 include explicit guidance for enrichment and extension activities for students with proficiency in grade-level skills. For example, in the teacher's "Concept Guide" in "Round to the Nearest Ten and Hundred," under the heading and chart "Activities, Structures, and Considerations," explicit teacher guidance is given on utilizing the enrichment and extension activities in this component. Students work on these activities independently or through partner work. The "Teacher Tips" section provides educator guidance for extending learning for students who have demonstrated grade-level proficiency.

Each unit has an "Application" section that includes explicit educator guidance for enrichment and extension activities for students who have demonstrated proficiency in grade-level content and skills. Each unit has "Solve a Task" and "Partner Games" designed to extend and enrich the content.

The *Strand by Grade Scope and Sequence* document provides teachers with a clear view of how concepts build across grades, enabling them to identify opportunities for extending learning beyond the current grade level. Additionally, the "Start here if students can . . ." statements in the "Progression of Mini Lesson Objectives" chart for the above-grade-level skill can point the teacher to the appropriate enrichment or extension activity for the student.

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.

Digital materials are not interactive for students; accommodations are not evident in the materials available. These materials are static and do not include accommodations like text-to-speech, content and language supports, or calculators that educators can enable or disable to support 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.

The materials include educator guidance on how to allow students to demonstrate understanding through various formats. For example, in "Compare and Order Numbers to 100,000," the "Teacher Tip" in Objective 2 states, "Other methods for renaming numbers into standard form are valid. For example, expanded form can be stacked vertically and added." This guidance shows an additional option for students to represent the value of a number to demonstrate their level of understanding.

The materials include educator guidance for offering options for students to demonstrate understanding in various formats. For example, in "Understand Division Concepts, Objective 1," the materials provide guidance for offering options for students to demonstrate their understanding of division. One suggestion is to model "the concept of equal sharing by having students act out sharing a collection of items among several people." Another option allows students to represent division by using paper and pencil. By the end of Objective 1, students represent division with equal groups with drawings of groups and objects.

3.2 Instructional Methods

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.2a	All criteria for guidance met.	5/5
3.2b	All criteria for guidance met.	2/2
3.2c	All criteria for guidance met.	3/3
3.2d	All criteria for guidance met.	2/2
3.2e	All criteria for guidance met.	2/2
—	**TOTAL**	14/14

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 build knowledge by activating prior knowledge and anchoring big ideas. In the "Concept Guide" of Objective 1 of "Representations of Multiplication," the teacher connects the relationship between addition and multiplication by writing *4 threes is 12* as repeated addition, in unit form, and as a multiplication equation. The materials state, "Multiplication is another way to write repeated addition. Instead of writing addition of the same number over and over, we can write the number of groups times the number of objects in each equal group."

The materials highlight and connect key patterns, features, and relationships through multiple means of representation. In "Multiplication as Multiplicative Comparisons," students are directed to use a variety of models to represent multiplication comparisons such as cubes in Objective 1, strip diagrams in Objectives 2 and 3, and expressions in Objective 4. The materials state, "When we describe multiplication as a comparison, the first factor tells us how many times to repeat the unit. The second factor tells us which unit is being repeated." This links multiplication to addition, a skill students should have shown proficiency in prior to starting multiplication.

3.2b – If designed to be static, materials include educator guidance for effective lesson delivery and facilitation using various instructional approaches.

Materials include educator guidance for effective lesson delivery and facilitation using various instructional approaches. In "Representations of Multiplication," students use tiles, arrays, and number lines to represent multiplication, providing an opportunity for hands-on exploration. At the end of Objective 1, "Plan Future Practice" instructs educators to use the provided practice page for students needing additional support. The guidance states, "Structure the additional practice strategically to allow for teacher support or peer support."

In "Place Value—Composing, Decomposing and Representing Numbers," educators are guided to allow students to use place value disks for hands-on exploration, followed by drawing on place value charts when students order and compare multi-digit numbers. Additionally, the materials connect this to real-world scenarios in "Solve a Problem" word problem cards, when they order the number of books different libraries have from greatest to least.

3.2c – Materials include multi-tiered intervention methods for various types of practice and structures and educator guidance to support effective implementation.

Educators use the "Progress Tool" and rubric to determine the objective lesson students would benefit from starting on, based on the student's level of proficiency on the specified TEKS. In "Representations of Multiplication," students would begin on Objective 3 if they "need support identifying the size of equal groups and the number of equal groups in an area model." In Objective 3, guided practice involves using tiles and creating arrays. Students then complete an independent practice page. After students reach proficiency, they work independently or collaboratively on "Application" activities.

In "Multiplication as Multiplicative Comparisons," students would start on Objective 3 if they "need support representing and understanding a multiplicative comparison in story contexts." In Objective 3, guided practice involves using strip diagrams and sentence stems to compare multiplication. Students then complete an independent practice page. After students reach proficiency, they work independently or collaboratively on "Application" activities.

The *Implementation Guide* includes guidance that "Progress Checks" can be used as a pre-post assessment or as a small-group assignment. Teachers use "Concept Mini Lessons" for small groups with direct instruction. Students can complete "Practice and Application" independently, with a partner or during small-group time.

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

Materials include enrichment and extension methods that support various forms of engagement, and guidance to support educators' effective implementation. In "Representations of Multiplication," students solve tasks such as "Solve a Problem," "Play a Game," "Study a Solution," and "Solve a Task." In "Solve a Problem," students work independently or with a partner. Teacher guidance includes "consider inviting students to share their work with a partner; students compare solution paths and make connections between different representations." In "Solve a Task," teacher guidance includes scaffolding such as "consider providing manipulatives for students to use to represent and solve the multiplication problems."

In the "Fractions as Numbers" unit, the "Application" section includes word problems based on real-life stories such as using strip diagrams to model placing bananas equally in cereal, illustrating fractions of eaten bread, and using a number line to represent the amount of fence painted.

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

Materials include prompts and guidance to support educators in providing timely feedback during lesson delivery. In the "Teacher Guide" under "Multiplicative Comparisons," the teacher is guided to ask students what the factors in an equation represent related to sticky notes labeled with. After students answer what they represent, guidance is provided to address common misconceptions such as, "When we describe multiplication as a comparison, the first factor tells us how many times to repeat the unit. The second factor tells us which unit is being repeated."

In "Representations of Multiplication," the teacher guides students to represent an expression on a number line in Objective 4. The teacher asks, "How can I use the number line to show the repeated addition? What do you think?" When students can make the connection between repeated addition and a number line, the teacher discusses labeling the number line and asks, "What number did we land on when we added 3? How do you know?" This gives the teacher opportunities to check for understanding and for students to explain their thinking.

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	All criteria for guidance met.	4/4
3.3b	This guidance is not applicable to the program.	N/A
3.3c	All criteria for guidance met.	1/1
3.3d	All criteria for guidance met.	8/8
3.3e	This guidance is not applicable to the program.	N/A
—	**TOTAL**	13/13

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.

The materials include educator guidance on providing and incorporating linguistic accommodations for all levels of language proficiency. The "Alignment Guide" for each concept provides alignment to the ELPS and highlights embedded supports for different levels of language proficiency. For example, in "Representations of Non-Unit Fractions," the "Alignment Guide" contains descriptors that account for accommodations for all levels of language proficiency—including pre-production, beginning, intermediate, high-intermediate, and advanced—such as creating anchor charts and turn-and-talk opportunities for speaking practice.

The grade 3 "Alignment Guide" for "Compare and Order Numbers to 100,000" addresses listening, speaking, reading, and writing skills at all ELPS levels and includes strategies such as having students discuss the meaning of comparison symbols, gesturing with place value disks and charts, writing practice with guidance, collaboratively playing games, listening and sharing with others, and writing and drawing activities to explain their thinking.

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.

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

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

The materials include a section in the *Implementation Guide* dedicated to specifically supporting emergent bilingual students and guidance for implementation to build vocabulary, comprehension, and knowledge. As stated in the *Implementation Guide*, "To support language output, teachers are encouraged to leverage the elements referenced above through strategically grouping students based on varied levels of mathematical proficiency or varied levels of English language proficiency. Teachers are also encouraged to complement any of these groupings by pairing students who speak the same language and encouraging them to use their home language alongside English to make sense of the directions and the mathematics." Further guidance states, "To support emergent bilingual students in making cross-linguistic connections through written discourse, teachers are encouraged to create cross-linguistic connections anchor charts. The chart should include terminology that is related to the current concept in the student's home language, the same terminology in English, and images to support understanding."

The *Implementation Guide* includes a section called "Using Math Catalyst in State-Approved Bilingual/ESL Programs." This guidance outlines how the program aligns with various instructional models, including dual-language one-way and two-way approaches, and it offers strategies to support emergent bilingual students in building both language skills and math understanding.

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 include embedded guidance to support emergent bilinguals. "Language Supports" embedded in the "Concept Mini Lessons" provide 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. In "Compose, Decompose, and Represent Numbers to 100,000," a "Language Support" prompts the teacher to use "precise terminology" with the question, "What is the value of the thousands disks?" The support suggests that precise language supports students with place value concepts. In Objective 3, the "Language Support" suggests making an anchor chart that labels the different ways to represent numbers with examples. The chart would include the number 43,215 in standard form, expanded notation, expanded form, and unit form. In Objective 4, the "Language Support" suggests another anchor chart, this time to make writing and spelling numbers accessible to students as they represent numbers in word form.

In "Compare Fractions with the Same Numerator or Denominator," teachers are provided with a "Language Support" in Objective 1. The support states, "Consider activating students' prior knowledge of the meaning of each symbol by displaying an anchor chart with each symbol and its matching comparison language." Objective 3's "Language Support" suggests a word bank that includes "greater than, less than, equal to, unit fraction tiles, gaps, overlaps, numerator, denominator, unlike units, and

compare." In Objective 4, the "Language Support" provides guidance to support the understanding of a position of a fraction on a number line, with phrase stems.

The "Concept Guide" includes "Key Terminology" cards, which include student-friendly definitions and visual representations that provide a flexible opportunity for pre-teaching and reinforcing of academic mathematical language.

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 and tasks—including enrichment and extension materials—that increase in rigor and complexity, leading to above-grade-level proficiency in the mathematics TEKS.	2/4
—	**TOTAL**	4/6

4.1a – Practice opportunities throughout learning pathways (including instructional assessments) require students to demonstrate depth of understanding aligned to the TEKS.

Student practice activities guide students in exploring rounding. In the "Round two-digit numbers to the nearest 10 on a vertical number line, Objective 1" student activity, students use graduated cylinders to visualize a vertical number line. Students then use vertical number lines to solve real-world rounding problems in connection with temperature, progressing to word problems. Students use vertical number lines of different sizes and visualize their thinking before justifying their solutions in practice objectives.

The "Progress Check Tool" for "Round to the Nearest Ten and Hundred" has problems related to these ideas.

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.

Each "Concept Mini Lesson" breaks up learning into learning objectives that increase in rigor and complexity. For example, in the "Representation of Multiplication" lessons, Objective 1 begins with students representing multiplication facts using equal groups, Objective 2 has students representing multiplication facts with arrays, Objective 3 has students representing multiplication facts using area model, and Objective 4 has students representing multiplication facts using equal jumps on a number line.

Enrichment and extension tasks are embedded rather than offered separately. For example, students engage in enrichment through application activities.

The materials do not include questions and tasks that increase in rigor and complexity, leading 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	Materials do not demonstrate coherence vertically across concepts and grade bands, including connections from grade K–6, by connecting patterns, big ideas, and relationships.	0/1
4.2c	All criteria for guidance met.	4/4
—	**TOTAL**	5/6

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. In "Representations of Multiplication," strategies are built upon one another to Velcro ideas for students. For example, in Objective 1 of "Representing Multiplication," students use tiles in equal groups to connect repeated addition to multiplication. In Objective 2, students use arrays to begin skip counting. In Objective 4, students can use a number line to skip count, count with repeated addition, or model a multiplication equation.

Students also see connections to multiplication in other areas such as relating multiplication to finding the area of objects.

4.2b – Materials demonstrate coherence vertically across concepts and grade bands, including connections from grade K–6, by connecting patterns, big ideas, and relationships.

Materials do not demonstrate coherence vertically, including connections up to grade 6, by connecting patterns, big ideas, and relationships.

The materials do provide an overview of progression in the *Strand by Grade Scope and Sequence*. They explain that in grade 3, the students compose, decompose, and represent numbers to 100,000. In grade 4, they build on this concept to compose, decompose, and represent numbers to the hundredths, incorporating decimals. In grade 5, the students progress to representing decimals to the thousandths place.

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.

In the "Concept Mini Lessons," the sample dialogue provides direct prompts that help teachers activate prior knowledge at the start of instruction. For example, in the "Teacher Tip" in "Representations of Non-Unit Fractions, Objective 2," the teacher is guided to activate students' prior knowledge of unit fractions to understand non-unit fractions. This encourages students to draw on their previous understanding of fractions as a foundation for engaging with new fraction concepts in the lesson.

In grade 3, the area model is consistently used with basic multiplication facts to lay the groundwork for understanding the more complex use of the area model with multi-digit multiplication in later grades. This intentional design helps students build on what they already know while preparing them for future mathematical concepts, ensuring both horizontal and vertical coherence throughout the program.

The "Teacher Tips" embedded in the "Concept Mini Lessons" component provide targeted guidance to help educators connect students' current learning to future mathematical concepts. For example, in Objective 4 of the "Concept Multiplication as Multiplicative Comparison," a "Teacher Tip" offers guidance on how to advance strategies for students who might use less efficient multiplication strategies such as repeated addition and drawing arrays. This intentional prompt helps teachers deepen student understanding while building a conceptual bridge to more advanced mathematical ideas, supporting students' readiness for future learning.

4.3 Coherence and Variety of Practice

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.3a	Materials do not include spaced retrieval opportunities with previously learned skills and concepts across learning pathways.	0/2
4.3b	Materials do not provide interleaved practice opportunities with previously learned skills and concepts across learning pathways.	0/2
—	**TOTAL**	0/4

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

Materials do not provide spaced retrieval opportunities with previously learned skills and concepts across learning pathways. The materials do not review previously learned skills or concepts across learning pathways and focus only on current learning.

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

The materials do not provide interleaved practice opportunities, as the activities and interventions provided focus on solo objectives without addressing interleaved topics and skills.

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 models and representations for mathematical concepts and situations.

The materials include questions and tasks that prompt students to interpret, analyze, and evaluate models and representations. For example, in "Compare and Order Numbers to 100,000," students use place value disks to compare and order numbers. Then, students use a place value chart and are asked, "What is the next largest unit? How do you know?" The prompts require students to analyze the place value chart and provide reasoning for the next unit available. Last, students create a number line and evaluate the placement of numbers on the number line compared to other numbers such as placing 20,000 and 22,000 on the number line and determining where to place 21,064 on the same line.

In "Understand Division Concepts," questions and tasks provide opportunities for students to interpret, analyze, and evaluate division models and representations. Students use cubes to distribute into equal groups. The teacher asks, "What does the number 10 represent in this problem?," prompting the student to interpret the meaning of the dividend. Students analyze the different parts of a division equation when asked, "What number represents the total? The number of groups? The size of each group?" Last, students evaluate models when asked, "How do I know when to stop drawing dots?"

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

The materials provide opportunities for students to create concrete and pictorial models to represent mathematical situations. For example, in the "Teacher Guide" under "Understand Division Concepts," students start by using cubes to model division. Then, students go from drawing models of buttons, to dividing and extending drawing strip diagrams to show equal groups of a given total.

In the "Compare and Order Numbers to 100,000" lesson, students begin by using place value disks. In the next lesson, students use a place value chart and compare numbers based on the largest units. Last, students create number lines to place numbers in order between benchmark numbers.

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

The materials provide opportunities for students to apply conceptual understanding to new problem-solving situations and contexts. For example, in the "Teacher Guide" under "Place Value and Rounding," students extend their understanding of rounding to the nearest ten and hundred by solving problems in real-life contexts. For example, students solve the following problem by using a visual aid/table with concert ticket cost information, "Mr. Davis buys 2 adult tickets and 3 child tickets. What is the total cost of the tickets, rounded to the nearest ten dollars?"

Early in the multiplication unit, students use concrete objects to understand multiplication. Later, in the "Application Section" of the unit, questions and tasks provide opportunities for students to apply conceptual understanding to new problem situations and contexts such as opportunities for students to make up stories that fit a given two-digit by one-digit multiplication problem, and finally, students are given a cake recipe and asked to find the amount of each ingredient based upon multiplying quantities.

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.

In Grade 3, the materials provide tasks that include fluency-building games designed to build automaticity and fluency with composing, decomposing, and place value representations of numbers. For example, in the "Teacher Guide" for the "Play a Game" application, "Compose, Decompose, and Represent Numbers to 100,000," students look for a pair of cards that represent a number in standard form and the same number in word form or expanded form. If the cards form a matching pair, students take the cards and continue, turning over two more cards. If the cards do not make a matching pair, they turn the cards back over, and it is the next partner's turn.

The "Application" section of "Fractions as Numbers; Representations of Unit Fractions" includes a game where students use unit fractions match cards to match the model and the matching unit fraction, which builds student automaticity and fluency necessary to complete grade-level tasks.

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

In "Representations of Multiplication," students use concrete objects to build multiplication number sentences. As students become proficient in using concrete models, they build arrays and number lines. Students apply their understanding and solve problems, including "Study a Solution" in "Application." Students are asked, "How does the drawing help you see a solution path for finding the unknown?" This gives students opportunities to select their methods to solve problems and analyze accurate models.

Throughout the "Comparing Fractions" unit, students compare fractions with the same denominator using fraction tiles. They are then asked to draw two given fractions on a number line and compare them. Students do this repeatedly to ensure efficiency, flexibility, and accuracy with the comparison procedures.

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

In "Representations of Multiplication," students build concrete models, arrays, and number lines to represent multiplication as repeated addition. Next, students analyze a model and determine the strategy that does not belong. Students answer, "Which representation does not represent the multiplication shown on the number line?" Students complete an activity called "Study a Solution," where they analyze a correct solution and choose a path that they would use to solve the same problem.

The "Error Analysis Tasks" in each practice component provide opportunities for students to evaluate mathematical representations, models, strategies, and solutions throughout the learning pathways. In the "Represent Numbers to 100,000 in Unit Form" unit, students represent numbers to 100,000 in unit form and show each digit's value. Students then analyze the visual representation of a number and identify the error. Students have flexibility when choosing a strategy to solve the problem themselves.

5.2d – Materials contain guidance to support students in selecting increasingly efficient approaches to solve mathematics problems.

Materials provide guidance to support students in more efficient approaches to solving mathematical problems. In "Multiplication as Multiplicative Comparisons," students compare numbers as multiples of one another through concrete and semi-abstract strategies. As students become more proficient in one strategy, the materials introduce more efficient strategies to solve mathematical problems.

The materials include educator notes about which tool, method, or approach is appropriate and efficient for solving a task when the task requires students to select an approach. For example, in the "Objective 4 Mini Lesson: Two-digit by one-digit multiplication: Teacher Tip," the materials provide guidance to teachers that state, "In grade 3, students solve by using strategies, such as repeated addition and drawing arrays. Although those strategies can be used to multiply accurately, they are generally not the most efficient strategies. Support students in advancing their strategies. Ask them to identify similarities between their strategies and strategies that might be more efficient."

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	All criteria for guidance met.	6/6
—	**TOTAL**	11/11

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

The *Implementation Guide* provides information on the "Balance of Conceptual Understanding and Procedural Fluency." This informative guidance explains that, "The objectives in Concept Mini Lessons progress in complexity and provide opportunities for students to develop conceptual understanding and procedural fluency. The Practice component helps students solidify their conceptual understanding and procedural skills."

In the "Teacher Guide" under "Place Value—Compose, Decompose and Represent," there is explicit guidance on the link between using linking cubes to build arrays and sticky notes to build strip diagrams to solve multiplication.

In the "Progression of Mini Lesson Objectives for the Multiplication" unit, the materials state how students move from 1) multiplying using concrete models of the distributive property to 2) multiplying using place value drawings and partial products to 3) multiplying by recording partial products in vertical form to finally 4) multiplying by using the standard algorithm.

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 provide opportunities for students to engage with concrete models, pictorial representations, and abstract models throughout the "Concept Mini Lessons." In "Compose, Decompose, and Represent Multi-Digit Numbers," students use place value disks to compose and decompose numbers into a place value chart in Objective 1. In Objective 2, students use the pictorial representation of the place value to write numbers in unit form.

In "Compare Fractions with the Same Numerator or Denominator," students use fraction tiles to compare fractions with the same denominator in Objective 1. In Objectives 2 and 3, students transition to pictorial representations such as strip diagrams and number lines. In Objective 4, students use comparison symbols to show the concept of greater than/less than.

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.

In "Compose, Decompose, and Represent Numbers to 100,000," students use place value disks to represent numbers using concrete models in Objective 1. As students regroup, they explain their thinking to answer questions, such as, "When I bundle ten thousands, what is the name of the unit? What do you think?" Students progress to pictorial representations with place value charts in Objective 2. In Objective 4, students use the place value charts, replacing the dots with digits to write numbers in word form.

In "Compare Fractions with the Same Numerator or Denominator," students represent fractions with fraction tiles. In Objective 1, the teacher prompts the students to explain their thinking: "I can ask myself, How many one-sixth unit fraction tiles do I need to represent 5/6? What do you think?" In Objective 2, students transition to using number lines. Students answer, "Is 3/4 greater than, equal to, or less than 1/4? How do you know?" Students transition to comparison symbols to represent fraction comparisons in Objective 4.

5.4 Development of Academic Mathematical Language

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.4a	All criteria for guidance met.	1/1
5.4b	All criteria for guidance met.	2/2
5.4c	All criteria for guidance met.	1/1
5.4d	All criteria for guidance met.	2/2
5.4e	All criteria for guidance met.	2/2
—	**TOTAL**	8/8

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

In the grade 3 "Teacher Guide" under "Place Value Composing and Decomposing," students use unit fraction tiles, repetition from the teacher, visual cues from the teacher, and strip diagrams to develop and explore academic mathematical language such as numerator and denominator, to describe fractional parts.

In the grade 3 "Teacher Guide" under "Multiplication: Relate Multiplication to Area," students use tiles to develop their mathematical language using visuals (pictures of the tiles) and manipulatives in the mastery of words such as *area*, *side length*, *rows*, *column*, *multiply*, and *square unit*.

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.

In the "Teacher Guide" under "Multiplication," the materials include embedded educator guidance to scaffold and support students' use of academic mathematical vocabulary in context when communicating with peers and educators. Objective 1 provides sentence stems for students to communicate with peers, such as "You have _____ cubes. I have _____ times as many cubes as you. I have _____ times as many as _____."

In the "Teacher Guide" under "Representations of Multiplication," language support scaffolding is suggested to provide sentence frames to help students verbalize how many equal groups there are and how many in each group. The sentence frames state, "There are __ equal groups of __. There are __ in each group. There are __ groups."

The "Concept Guide" includes "Key Terminology" cards, which include student-friendly definitions and visual representations that provide a flexible opportunity for pre-teaching and reinforcing of academic mathematical language, as well as extending students' use of academic vocabulary in context when communicating with peers and educators.

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

In the "Teacher Guide" under "Compare and Order Numbers to 100,000," students compare numbers using place value disks or a place value chart. Guidance in Objective 1 includes a turn-and-talk with students explaining how they used place value to compare numbers. Additional questions include, "What digit is in the largest unit of each number? What is the value of the digit?" In discourse, students use vocabulary such as *compare*, *equal to*, *greater than*, *less than*, and *unit*.

In the "Teacher Guide" under "Multiplication of Two-Digit Numbers by One-Digit Numbers," the Objective 2 "Teacher Tip" instructs the teacher to "invite students to turn and talk about how they can find the area of a shape composed of rectangles by subtracting from a larger area."

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

Materials provide guidance that allows students to hear and refine the use of math language with peers. In the "Teacher Guide" under "Compare and Order Numbers to 100,000," students compare numbers using place value disks or a place value chart. Guidance in Objective 1 includes a turn-and-talk with students explaining how they used place value to compare numbers. The materials also include guidance for students to advance and refine their thinking in discourse with questions such as, "What is the largest unit in each number?" and "What is the next largest unit in each number?"

In the "Teacher Guide" under "Fractions as Numbers: Representations of Non-Unit Fractions," the materials guide the teacher to, "Invite students to turn and talk about how they can represent non-unit fractions on the number line ."

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 provide one exemplary response to the question and tasks. For example, in the "Teacher Guide" under "Compare and Order Whole Numbers to 100,000" in Objective 2, the materials include questions followed by exemplar student responses, such as Q: "What is the next largest unit? How do you know?" R: "The next largest unit is thousands. 3,000 represents 3 thousands." Guidance continues, Q: "Next, the expanded form shows one ten. Is the tens column the next column in the place value chart?" R: "No. The hundreds column is next."

In the "Teacher Guide" under "Compare and Order Numbers to 100,000" in Objective 2, the materials ask questions such as, "Look at the next number we are comparing, the number written in expanded form. What is the largest unit in that number? How do you know?" The exemplar response follows: "We know

the largest unit is ten thousands because the expanded form shows 60,000. The number has six ten thousands."

The "Concept Mini Lesson" component features visual examples of sample student work, providing teachers with clear expectations for what proficient solutions may look like. The "Analyze Student Progress" section of every "Concept Mini Lesson" offers "Questions to Advance Student Thinking." These prompts help teachers interpret a variety of student strategies, identify misconceptions, and provide scaffolded guidance to support students in correcting inaccuracies. Beyond the "Concept Mini Lessons," the "Addressing Student Misconceptions" section of each "Concept Guide" provides explicit guidance for responding to common misunderstandings, ensuring that teachers have actionable strategies to redirect inaccurate responses.

5.5 Process Standards Connection

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.5a	All criteria for guidance met.	1/1
5.5b	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.

TEKS process standards are integrated into the materials. In "Compare and Order Numbers to 100,000," students compare numbers (content) in "Solve a Problem" in the "Application" section (process) while using a place value chart (process) to align digits.

In "Representations of Multiplication," students play a game in the "Application" section where they multiply (content) the two numbers turned over on cards while using square inch tiles or grid paper (process) to solve the equations.

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

The *Implementation Guide* includes a paragraph detailing how the process standards integrate into different components of the program. The *Implementation Guide* states, "In 'Compare and Order Numbers to 100,000,' students use manipulatives and visuals, including place value disks and place value charts, to represent numbers."

In "Representations of Multiplication," the *Implementation Guide* describes how students will use objects and visuals such as tiles and number lines to represent multiplication.

The "Alignment Guide" for each math strand lists the process standards incorporated in that unit. For example, the "Alignment Guide" lists the following process standards in the multiplication pathway: "1A, 1C, 1D, 1E, 1F, 1G." The "Alignment Guide" lists the process standards for each math strand and how they connect throughout the pathway.

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. The materials include an "Alignment Guide" for each unit, which includes a section listing the process standards but does not highlight which process standards fit 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	All criteria for guidance met.	3/3
—	**TOTAL**	9/9

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

In the "Teacher Guide" under "Multiplication as Multiplicative Comparisons," each concept mini lesson objective and question increases in difficulty, allowing students to build confidence before tackling more complex problems.

Questions provide opportunities for students to think mathematically and make sense of the mathematics such as "Which factor represents the unit that is repeated? How can you show that with your cubes?," "Which factor represents how many times the unit is repeated? How can you show that with your cubes?," and "How can you use times as many to describe the multiplication expression?"

In the "Teacher Guide" under "Multiplication: Representations of Multiplication," students solve a task involving multiplication. Students use the provided information and image to solve three problems. The materials instruct teachers that students must think critically to determine the solution.

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

In the "Teacher Guide" under "Round to the Nearest Ten and Hundred," the "Solve a Problem" activity in "Application" supports students in understanding, explaining, and justifying their way of solving a problem by asking them to, "Consider inviting students to share their work with a partner. Students can compare solution paths and make connections between different representations ."

In "Multiplication of Two-Digit Numbers by One-Digit Numbers," the "Read-Draw-Write Tool" provides scaffolding for students to understand the problem, explain what they know, and justify their thinking.

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.

The "Round to the Nearest Ten and Hundred" application activities in the "Teacher Guide" provides opportunities for students to write about and discuss math with peers. In "Solve a Problem," students share their work with peers to discuss the different solution paths and make connections between different representations. Students use the "Read-Draw-Write Tool" to organize and reflect on their problem-solving.

In "Represent numbers to 100,000," the materials ask students to represent numbers in multiple ways. The teacher asks students to "decompose the number by using place value in other ways." Students use provided examples of renaming numbers using different place value units.

In "Find the Area of Composite Shapes by Using Rectangles," Objective 4, students "choose a strategy to use to find the area of the shaded shape." Students use different strategies to find the area of the rectangle such as finding unknown lengths in different ways and decomposing the rectangle in different ways. Students then share their work with others.

6.2 Facilitating Productive Struggle

GUIDANCE	SCORE SUMMARY	RAW SCORE
6.2a	All criteria for guidance met.	6/6
6.2b	Materials do not include prompts and guidance to support educators in providing explanatory feedback based on student responses.	2/4
—	**TOTAL**	8/10

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

Materials support educators in guiding students to share and reflect on their problem-solving approaches with explanations, arguments, and justifications. In the "Teacher Guide" under "Compare and Order Numbers to 100,000," students turn and talk, explaining how comparing and ordering numbers are similar and different in Objective 3.

In the "Compare and Order Numbers to 100,000" application, students compare numbers by playing a game "Three in a Row." The materials provide opportunities to argue and justify student solutions when comparing work, including prompts such as, "If you disagree, share your work with each other and find the mistake."

In the "Compare Fractions" application, students play a game where they are comparing fractions and writing comparison statements on whiteboards with partners. To explain, justify, and argue their solutions, students answer the following prompt: "If you disagree, share your work with each other and find the mistake."

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

Materials include prompts to support educators in providing feedback for anticipated misconceptions. In the "Teacher Guide" under "Fractions as Numbers: Compare Fractions with the Same Numerator or Denominator," in the "Addressing Student Misconceptions section," prompts support educators for possible misconceptions such as, "How many partitions do you need to make from 0 to 1 to represent each fraction?" and "What do you notice about the size of the parts on the number line?"

The materials include guidance on how to support educators in anticipating misconceptions. In the "Teacher Guide" under "Relate Multiplication to Area," the materials identify students' thinking that they need to fill in the entire array as a misconception and provide suggestions on addressing this throughout the lesson. For example, the materials suggest teachers emphasize vocabulary terms with tactile movements and connect them to a corresponding multiplication sentence. They also suggest that the teacher explicitly connect the multiplication sentence to the number of rows and columns.

The materials do not include prompts or guidance for explanatory feedback based on student responses. The materials include "Teacher Tips," which include various types of support. However, the tips do not include prompts or guidance that support the educator in providing explanatory feedback based on student responses.