Great Minds PBC

Supplemental English Mathematics, 5
Math Catalyst Texas, Grade 5

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%	34	2	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	35 out of 36	97%
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 kindergarten through grade 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) in 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.

In the *Implementation Guide*, in the section titled "Tiered Instruction Recommendations and Program Structure and Components," it is noted 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, with 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" that contains questions that equip instructional leaders to proactively support educators in creating a classroom environment conducive to meaningful student engagement, learning, and 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 decimals to thousandths in standard 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 child such as, "How can you draw on the place value chart to represent the place value units?" 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 & 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 Towards 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 "Divide with Unit Fractions and Whole Numbers"

progress check, question 2 states, "Draw a model to find the quotient. Then complete each statement to check your work."

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, or 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 5, formative assessments include questions starting with a simple task of using fraction tiles to make like units to add and subtract fractions, then creating a number line, completing area models, and using multiplication to find common denominators. The materials include application questions that include answering word problems in a game setting and applying and analyzing 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 contain 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 for using tasks and activities related to student performance on formative assessments. For example, in grade 5, in the "Progression of Mini Lesson Objectives" for adding fractions with unlike denominators, the materials provide guidance to teachers on what objectives to instruct based on student trends in assessment performance.

The materials also provide guidance such as, "Start here if students can represent fractions with unit tiles" or "Start here if students can add fractions with like units with concrete objects."

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, "Add unit fractions with related units by using objects," Objective 1, there are prompts for teachers to conduct frequent checks for understanding throughout the lesson such as, "Can the student use unit fraction tiles to rename fractions with related units as equivalent fractions with like units?" "Can the student correctly rewrite the addition expression by using the equivalent fraction?" "Can the student correctly find the sum?"

During the lessons, the materials provide guidance to support educators in conducting frequent checks for understanding through "Teacher Tips." For example, after the teacher prompts students to rename the fraction, the guidance states, "It is not necessary for students to find the least common denominator when they add fractions. Students can use any common multiple that results in like units."

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	Materials do not include explicit educator guidance for enrichment and extension activities for above-grade-level content and skills.	1/2
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**	8/9

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.

Materials include explicit educator guidance for lessons or activities scaffolded for students who have not yet reached proficiency in prerequisite or grade-level concepts and skills. Materials include a page in each lesson that provides topic-specific scaffolds and activities for students who have not yet reached mastery. For example, in the grade 5 "Concept Guide: Round Decimals to Tenths or Hundredths" under the heading "Addressing Student Misconceptions," the teacher is given guidance on addressing misconceptions the student may have with these instructions: "Use a place value chart to help students represent numbers. On a place value chart, students can see when there is 0 of a place value unit. Clarify that zeros hold places but do not add value, reinforcing why they must be included when representing numbers in standard form."

In the grade 5 "Concept Guide: Subtract Fractions with Unlike Denominators" under the heading "Addressing Student Misconceptions," the teacher is given guidance on how to address misconceptions the student may have with these instructions: "Consider using the following sequence to support students in renaming fractions to make like units when they subtract fractions with unlike denominators." Materials then provide a scaffolded sequence for teachers to help students achieve mastery.

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 in each unit's "Language Support" section of the "Concept Guide." For example, in the "Concept Guide" for "Compare and Order Decimals to Thousandths," the materials guide teachers to have students use a number line when verbally comparing decimals. These descriptions mirror the "Language Support" tips embedded throughout the mini lessons to support academic vocabulary and unfamiliar references in math lessons.

In grade 5, Objective 4, "Mini Lesson: Add Fractions with Related or Unrelated Units," guidance states, "Consider providing sentence frames to support students as they talk about how to add fractions with unlike units by finding equivalent fractions numerically."

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 grade 5 "Concept Guide: Subtract Fractions with Unlike Denominators," under the heading and chart "Activities, Structures, and Considerations," explicit teacher guidance is given on utilizing this component's enrichment and extension activities. These activities are suggested for independent and partner work. The materials include teacher tips that help provide more teacher guidance to assist 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.

Materials do not include explicit educator guidance for enrichment and extension activities for students above grade level.

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.

In "Divide Decimals by Two-Digit Numbers," the "Teacher Tip" contains a differentiation idea. It states, "If students need a concrete representation, make place value disks available and allow students to distribute and exchange the disks."

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.

The materials provide connection of key patterns, features, and relationships throughout the direct instruction, through anchoring big ideas and activating prior knowledge. In "Multiplication of Multi-Digit Numbers by Multi-Digit Numbers," students use area models, partial products, and standard algorithms to represent multiplication. Area models and partial products were used in grade 4 to represent multiplication, giving students a link to prior knowledge. The materials in Objective 1 provide the opening: "I can ask myself, 'How can I break apart the factors to help me multiply? What do you think?'" This allows students to make connections to other ideas on how to attack the expression 12 x 324.

In "Division of Multi-Digit Numbers by Two-Digit Numbers," Objective 1, teachers are provided with, "Let us start with an estimate. Estimation will help us determine the reasonableness of the quotient and give us a starting point." This connects the idea of rounding, a skill previously learned, with estimating quotients. Students use multiple representations to show division such as strip diagrams, area models, and the standard algorithm.

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

The materials include teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches such as inviting the students to turn and talk about how they solved problems, hands-on exploration and math manipulatives in "Concept Mini Lesson" objectives, and connecting concepts to real-world problems and scenarios to learn about mathematical concepts. For example, a "Teacher Tip" on "Differentiation Objective 2: Decompose to Divide Decimals" states, "If students need a concrete representation, make place value disks available and allow students to distribute and exchange the disks."

In "Multiplication of Multi-Digit Numbers by Multi-Digit Numbers," educators provide direct instruction and guided practice throughout the objective lessons. 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 the "Application," students solve real-world scenario questions in "Solve a Task" about peanuts grown on plants and peanut butter in jars. Students complete "Application" activities independently or in small groups.

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 "Multiplication of Multi-Digit Numbers by Multi-Digit Numbers," students would start on Objective 3 if they "need support multiplying a three-digit number by a two-digit number by using the standard algorithm when no regrouping is required in the partial products." In Objective 3, guided practice involves solving problems without regrouping using the standard algorithm. Students then complete an independent practice page. After students reach proficiency, they work independently or collaboratively on "Application" activities.

In "Division of Multi-Digit Numbers by Two-Digit Numbers," students would start on Objective 3 if they "need support dividing three-digit numbers by using area models and vertical form." In Objective 3, guided practice involves using area models that lead to the standard algorithm to solve division problems. 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- and 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 "Multiplication of Multi-Digit Numbers by One-Digit Numbers," students solve tasks such as "Solve a Problem," "Play a Game," 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 inviting students to share their work with a partner; students can compare solution paths and make connections between different representations."

In the "Application" section of "Round Decimals to tenths or hundredths," a combination of three activities is provided that can be utilized independently or with a partner, in which the purpose of each task is to "engage students in applying their understanding of rounding decimals to tenths or hundredths."

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

Prompts and guidance are embedded in the lessons to give students timely feedback. In "Multiplication of Multi-Digit Numbers by Multi-Digit Numbers," students are led through multiplying using the standard algorithm. In Objective 3, the teacher asks, "What is important to think about as we record three partial products on the same line in vertical form?" This gives the teacher opportunities to check for understanding, and students to explain their thinking.

In "Division of Multi-Digit Numbers by Two-Digit Numbers," students divide using strip diagrams and vertical form. In Objective 1, students are asked, "What equation must be true if our answer is correct? Is that equation true? How do you know?" This gives the teacher opportunities to check for understanding, and 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 includes alignment to the ELPS and highlights embedded supports for different levels of language proficiency. For example, in grade 5, "Divide Multi-Digit Numbers by Two-Digit Numbers," 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 using gestures, think-alouds, modeling, and supports for understanding new vocabulary.

The "Alignment Guide" for "Divide Multi-Digit Numbers by Two-Digit Numbers" addresses listening, speaking, reading, and writing skills at all ELPS levels and includes strategies such as using concrete manipulatives and pictorial representations for students in playing games, using sentence stems to describe mathematical procedures, and turn-and-talk opportunities to discuss the mathematical plan.

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 Decimals to Thousandths," Objective 1, the topic of the "Language Support" is to use precise terminology. The support states, "For example, ask 'What is the value of the thousandths disks?' rather than asking 'How many thousandths disks are there?' Precise language will support students with place value concepts." The "Language Support" in Objective 3 suggests creating an anchor chart of different methods to represent a number such as standard form, expanded notation, expanded form, and unit form. In Objective 4, the "Language Support" suggests creating an anchor chart that shows various forms of a decimal.

In "Divide with Unit Fractions and Whole Numbers," Objective 2 provides a "Language Support" that suggests a turn-and-talk opportunity for students to define the size of groups and number of groups within the division expression. The support states, "Talking with a peer provides opportunities for students to hear, refine, and use mathematical language."

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.

3.3e – 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 include adding fractions with unlike denominators using concrete objects, number lines, and area models in the "Add Fractions with Unlike Denominators" mini lessons. The "Practice" page sections provide additional demonstration opportunities. "Application" and "Progress Check" tools in the "Add Fractions with Unlike Denominators" lessons provide assessment opportunities for students to demonstrate the addition and subtraction of fractions related to real-world applications.

Students demonstrate depth of understanding aligned to the TEKS in the "Application" components and "Progress Check" tool in the "Add Fractions with Unlike Denominators" lesson.

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 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.

For example, in grade 5, students connect ideas related to division of multi-digit numbers by two-digit numbers to division of decimals, and further connect these ideas to division of fractions.

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.

The materials do provide an overview of progression in the *Strand by Grade Scope and Sequence*.

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 "Concept Mini Lessons" provide direct prompts that help teachers activate prior knowledge at the start of instruction. For example, in the "Teacher Tip" in Objective 2 of "Multiplication of Whole Numbers and Fractions," the teacher is guided to activate students' prior knowledge of the associative property of multiplication. This encourages students to draw on their previous understanding of the associative property with whole numbers as a foundation for engaging with new multiplication concepts in the lesson.

In grade 4, 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 2 of the "Concept Divide Multi-Digit Numbers by Two-Digit Numbers," a "Teacher Tip" offers guidance on how to avoid future misconceptions about negative numbers. 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 Decimals to Thousandths," students begin by using a number line. They are asked, "When 1 tenth is partitioned into 10 equal parts, what is the new unit?" Students interpret the number line and analyze where to place the decimals 0.04 and 0.09. Students then evaluate numbers in place value charts to order 0.408, 0.312, and 0.477 and are asked, "How can you compare the value of the digit in the hundredths place of these two numbers (0.408 and 0.477)?"

In "Divide Decimals by Two-Digit Numbers," students use a place value chart to model division and interpret the representation of the dividend and divisor. They then analyze their drawing to regroup whole numbers into decimals and evaluate whether their model is still equal to the original dividend. Students are asked, "How can you rename a unit into smaller units?"

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 "Compare and Order Numbers to 100,000," 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. Students create number lines to place numbers in order between benchmark numbers.

In "Divide Decimals by Two-Digit Numbers," students draw disks using a place value chart. However, if a student needs additional assistance, a "Teacher Tip" states, "If a student needs a concrete representation, make place value disks available and allow students to distribute and exchange the disks."

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 "Adding Fractions," after students experience how to add fractions conceptually, students engage with problems such as, "Yuna continues walking clockwise. She completes one full loop. Then she keeps walking. When she gets to the 13-mile distance marker, she turns around and goes back to the start of the path. How many miles does Yuna walk on the walking path?"

In the "Application" section of "Place Value: Rounding Decimals to Tenths of Hundredths," after students have mastered rounding in different ways, a table shows a veterinarian's chart of weights of four dogs given to the thousandths' place. Students use rounding to identify a given weight of 5.6 kg.

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 materials provide tasks, including fluency-building games designed to build automaticity and fluency with composing, decomposing, and place value representations of numbers. In the "Teacher Guide" for the application "Play a Game" (a component of the "Place Value Compose, Decompose and Represent" unit), there is a game where students work with a partner and take turns flipping over two cards. If the cards make a matching pair of a number in standard form and a number in unit form, word form, or expanded notation, the player takes the cards and goes again, turning over two more cards. This quick recall helps build student automaticity.

In the "Application" section of "Multiplication of Mult-Digit Numbers by Multi-Digit Numbers," students play a fluency game where they roll dice and multiply numbers quickly with a partner. This practice helps build automaticity of multiplication.

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

In "Multiplication of Multi-Digit Numbers by Multi-Digit Numbers," students practice strategies that build efficient and accurate computation. They start with area models and place value charts to connect to the distributive property. In further lessons, students use the vertical form that connects partial products to the area models and then the distributive property. Students practice solving with vertical form before using the standard algorithm.

In "Division of Multi-Digit Numbers by Two-Digit Numbers," students are provided strategies that build efficient and accurate computation. Students use strip diagrams and estimations to determine quotients before solving with the standard algorithm. Students revert to area models to determine partial quotients before solving using the standard algorithm alone.

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

In "Multiplication of Multi-Digit Numbers by Multi-Digit Numbers," students evaluate models and strategies. In "Helper 4," students are given the equation 34 x 637. Students solve using the area model, partial products, and the standard algorithm. The materials provide questions for students to determine efficiency and accuracy as they work through the same problem. Questions include "Can you picture an area model to help you think about how to break apart the factors?"

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 "Subtract Fractions with Related and Unrelated Units," students analyze the visual representation and determine the error in the fraction subtraction. Students utilize a strategy they know for subtracting fractions and analyze where the mistake occurs in this example.

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

In "Multiplication of Multi-Digit Numbers by Multi-Digit Numbers," students are guided to more efficient approaches through the objective lessons. In Objective 1, students multiply using area models and the distributive property. In Objective 2, they multiply using vertical form and partial products, moving on to more efficient strategies. In Objectives 3 and 4, students use standard algorithms, including multiple regroupings.

In "Division of Multi-Digit Numbers by Two-Digit Numbers," students are guided to more efficient approaches through the objective lessons. They solve by estimating solutions, using strip diagrams and area models, and determining quotients using the standard algorithm. Throughout the unit, students reflect on which strategy is the most 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."

While learning about composing, decomposing, and representing decimals to the thousandths, the materials include explicit guidance on the link between using place value disks and charts to represent decimals, then unit form, standard form, expanded form, and word form.

In the "Progression of Mini Lesson Objectives" for the "Multiplication" unit, the materials state how students move from multiplying three-digit numbers by two-digit numbers using the distributive property, vertical form, standard algorithm, and standard algorithm in problems with multiple regrouping.

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 Decimals to Thousandths," students use place value disks to represent whole numbers and decimals before transitioning to a pictorial place value chart representation in Objective 1. In Objective 4, students replace the dots on the place value chart with digits to represent numbers in word form.

In "Divide Multi-Digit Numbers by Two-Digit Numbers," students use strip diagrams to partition and divide in Objective 1. In Objective 3, students divide and obtain partial quotients using an area model. In Objective 4, students use the standard algorithm to divide.

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

The materials include supports for students to connect, create, and define or explain the progression of concrete to abstract concepts. In "Compose, Decompose, and Represent Decimals to Thousandths," students use place value disks to decompose hundredths into thousandths. Students transition to the place value chart and pictorial representations in Objective 1. In Objective 3, students use the place value chart, but transition to representing numbers in expanded notation, an abstract concept.

In "Multiplication of Whole Numbers and Fractions," students begin with fraction tiles and a number line. In Objective 1, students are reminded, "Multiplication is another way to write repeated addition. What repeated addition expression is equal to 3 x 1/4?" Students then line up the fraction tiles on the number line as they make an equation that shows the multiplication is equivalent to repeated addition. In Objective 2, students use strip diagrams and make comparisons such as, "How does our strip diagram for 8 x 3/4 going to look different from the strip diagram representing 8 x 1/4?" As students continue to transition from concrete to pictorial, Objective 3 focuses on using grid models and shading to show multiplication of fractions. In Objective 4, students transition to abstract thinking with expressions multiplying whole numbers and fractions.

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.

Materials provide embedded opportunities for students to develop their academic mathematical language using visuals and manipulatives throughout each of the lesson objective components. In the grade 5 "Teacher Guide" for "Place Value: Compose, Decompose, and Represent Decimals to Thousandths," Objective 1, the "Language Support" section suggests using sentence frames to help students discuss composing decimals with place value disks and charts. Examples include: "To represent the number using place value disks, we place ____ in the ____ place . . .," "The digit ____ is in the ____ place, so its value is ____," "The total value of the number is ____ because ____."

In the "Teacher Guide" in the "Fractions" unit, students use unit fraction tiles to develop and explore mathematical language such as *compose*, *decompose*, *halves*, *fractional unit*, *renaming*, and *equivalent fractions* to describe fraction operations and activities. Students use these academic vocabulary words throughout the lesson to explain their learning.

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," the lesson on "Composing Decimals to the Thousandths" includes embedded educator guidance to scaffold and support students' use of academic mathematical vocabulary in context when communicating with peers and educators. Objective 1 states, "Consider providing sentence frames to support students as they talk about how to compose decimals to thousandths and represent them by using place value disks and charts such as, 'To represent the number by using place value disks, we place ____ in the ____ place, ____ in the ____ place, and so on.' 'The digit ____ is in the ____ place, so its value is ____.' 'The total value of the number is ____ because _____.'"

In the "Teacher Guide" under "Add Fractions with Unlike Denominators," scaffolding is suggested in a "Language Support" to provide sentence frames to support students as they discuss adding fractions with unlike units by finding equivalent fractions numerically in Objective 4. The sentence frames state,

"The fractions _ and _ do not have like units because _. I think about what fractional unit is related to _ and _. To rename _ as an equivalent fraction with units of _, I multiply _ by _."

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, 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.

Materials include embedded guidance to support student mathematical language and vocabulary application. In the "Teacher Guide" for "Add Mixed Numbers," a think-aloud—"We renamed the fractional parts of the mixed numbers with like units. Then we used the commutative property to add"—precedes a turn-and-talk in Objective 3. Students talk about how they can add mixed numbers with units that are unlike them.

In the "Teacher Guide" for "Round Decimals to Tenths or Hundredths," the guidance suggests students turn and talk about "what you notice about the two vertical number lines" in Objective 1. During discussions, students are encouraged to use vocabulary such as *fractional units*, *like units*, *compose*, *decompose*, *unrelated fractional units*, *related units*, and *equivalent fractions*.

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

In the "Teacher Guide" for "Add Mixed Numbers," students turn and talk about how they can add mixed numbers with unlike units. The materials also include guidance for students to advance and refine their thinking in discourse with questions such as, "What do you notice about the fractional units?" and "How can you use the commutative property to add?"

In the "Teacher Guide" for "Fractions as Numbers: Representations of Non-Unit Fractions," the materials for Objective 2 guide teachers 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," Objective 2 of "Multiply a Whole Number by a Fraction using Strip Diagrams," exemplar questions and responses include, "How many copies of 1/4 do you see?" (8 copies.) Guidance continues, "What multiplication expression does the strip diagram show?" (8 × 1/4.)

In the "Teacher Guide" under "Add Mixed Numbers," the teacher asks about renaming fraction units so students can add. The materials include questions such as, "What fractional unit can I use to make like units that are related to ninths and sixths?" The materials include exemplar responses such as, "Eighteenths and thirty-sixths." 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 "Add Mixed Numbers," students solve a problem in "Application" (process) by adding mixed numbers (content) using a "Read-Draw-Write Tool" (process) to organize the information.

In "Round Decimals to Tenths or Hundredths," students solve a problem in "Application" (process) where they round decimals (content) using a "Read-Draw-Write Tool" (process) to organize the information.

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

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 are woven into different components in the program. In "Add Mixed Numbers," the *Implementation Guide* explains that students will use number lines to decompose numbers to solve equations.

The *Implementation Guide* explains in "Round Decimals to Tenths or Hundredths" that students will use vertical number lines to determine benchmark numbers and round.

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" in "Subtract Mixed Numbers," each "Concept Mini Lesson" objective 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 mathematics such as, "What strategy can you use to subtract the whole number from the mixed number?" "Can you draw something to represent the subtraction?" "What can you draw?" "How can you use your drawing to find the difference?"

In the "Teacher Guide" under "Division: Divide Decimals by Two-Digit Numbers," students solve a task involving dividing decimals by two-digit numbers. 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 "Round Decimals to the Thousandths Place," Objective 3, the materials explain to students that there are multiple ways to represent and rename numbers, and then round. The materials include prompts to support students in understanding, explaining, and justifying that there are multiple ways to solve problems when it asks things such as, "I think there is another way to represent 1.340. What do you think?", and "What other number can we name differently?"

In the "Teacher Guide" under "Multiplication of Multi-Digit by Multi-Digit Numbers," the "Solve a Problem" activity in "Application" supports students in understanding, explaining, and justifying multiple ways to solve a problem when it asks, "Consider inviting students to share their work with a partner. Students can compare solution paths and make connections between different representations."

In "Multiply Fractions and Whole Numbers Using the Commutative Property," Objective 4, the materials suggest multiple ways to model and multiply fractions. The materials include prompts such as, "When we need to find a product that can be difficult to model with one interpretation, we can reverse the order and model it another way. Let's try . . ." followed by, "Which interpretation would help you model and solve this problem, and why?"

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 "Teacher Guide," "Multiplication of Multi-Digit by Multi-Digit Numbers" and "Application" activities provide opportunities for students to do, write about, and discuss math with peers by solving tasks. 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 "Fractions—Subtract Fractions with Unlike Denominators," in the "Study a Solution" section, students solve, discuss, and write about math when they analyze a correct solution to a word problem using fractional quantities of flour in a recipe. After studying the solution to the question, students answer questions such as identifying the known and unknown in the solution, how the drawing helps support the solution, and how the written statement answers a question with a partner.

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 "Subtract Mixed Numbers," students turn and talk to explain how they can subtract a fraction from a mixed number in Objective 2.

In "Subtract Mixed Numbers" in the "Application" section, students play a game called "Three in a Row." They solve the equation and proceed: "If the players disagree, they share their work and identify the error." The game continues after students have argued and justified their thinking.

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 "Compare and Order Decimals to the Thousandths" in the "Addressing Student Misconceptions" section, prompts support educators for possible misconceptions such as, "What place value units do you see in each number?" "What is the largest unit in each number?" "What is the value of the digit in the largest unit in each number?"

Materials include guidance on how to support educators in anticipated misconceptions. In the "Teacher Guide" under "Division: Divide Decimals by Two-Digit Numbers," addressing student misconceptions prompts are given to support educators to clear up misconceptions such as, "Invite students to use place value disks when working with the place value chart so that they can concretely see how the dividend is represented by the disks as they arrange them at the top of the chart."

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.