Accelerate Learning Inc.

Supplemental English Mathematics, 3

STEMscopes Texas Math Pulse–Grade 3 English

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Supplemental	**9798330804863**	**Digital**	**Static**

Rating Overview

TEKS SCORE	TEKS BREAKOUTS ATTEMPTED	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	233	5	Flags Not in Report	Not Applicable	0

Quality Rubric Section

RUBRIC SECTION	RAW SCORE	PERCENTAGE
1. Intentional Instructional Design	23 out of 23	100%
2. Progress Monitoring	20 out of 24	83%
3. Supports for All Learners	37 out of 39	95%
4. Depth and Coherence of Key Concepts	16 out of 16	100%
5. Balance of Conceptual and Procedural Understanding	38 out of 38	100%
6. Productive Struggle	19 out of 19	100%

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 "Grade 3 Scope and Sequence" table includes five sections: "Scope Name," "TEKS Covered," "Explores," "Included Standards," and "Total Instructional Days." The "Scope Name" in the table provides the overall concept covered, and the "Explores" section breaks down each concept into smaller topics. There are 22 Scope Name concepts in the "Scope and Sequence" table, and four Scope Name concepts that are ongoing at the bottom. The ongoing concepts include Daily Numeracy, Fact Fluency: Addition and Subtraction, Fact Fluency: Multiplication and Division, and Data Science.

The "Grade 3 Course Rationale" provides a summary of each unit and how it connects to previous and future scope materials. For example, the "Grade 3 Course Rationale" states, "The Count Money scope focuses on the practical skill of counting coins and bills to determine the value of money using multiplication and addition."

The "Vertical Alignment Chart" lists the Texas Essential Knowledge and Skills (TEKS) side by side, displaying how each grade level builds on the previous one to develop students' mathematical knowledge and skills.

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*, which provides just-in-time supports, such as individualized instruction and assessment. The *Implementation Guide* states, "Another key feature in our

curriculum is that both intervention and extension (acceleration) activities are provided. The teacher can individualize their plans by using the "Scaffolded Instruction Guide" located in each scope to guide instruction based on student data." The *Implementation Guide* also includes an "Intervention" section, which provides the tools teachers can use to support students needing intervention, including supplemental aids, checkup, and small-group intervention. The "Acceleration" section provides tools such as "Math Today!" and "Create Your Own."

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

The "Scaffolded Instruction Guide" provides a table of tiered activities based on Measures of Academic Performance (MAP) assessment or scope assessment data. The table includes four percentile ranges for every TEKS statement within the unit and provides activities based on level. For example, the scope provides these four levels: "0–25 percent (Previous Grade Level Remediation), 25–50 percent (Grade Level with Supports), 50–80 percent (Grade Level), and 80–100 percent (Extending Grade Level)." Each percentile range includes embedded links to activities and strategies, including manipulative practice, interactive games, hands-on activities, and small-group instruction.

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

Each scope provides a "Suggested Scope Calendar" with unit and lesson internalization guidance. The scope internalization guidance provides the same four steps for all scopes within the materials. Internalization steps include the following: "Review the standards addressed in the scope and become familiar with the way the standards are assessed and what demonstrates mastery. Review the Progression of Learning found in the Scope Overview to understand how the concepts are sequenced. Determine which resources will be used for practice and assessment."

The lesson internalization guidance includes the same four steps for all lessons within the materials. Internalization steps include the following: "Review the teacher instructions and associated documents. Become familiar with the models, tools, and strategies students will use in the activity. Consider the purpose of the lesson within the scope, and identify what students must know and be able to do as a result. Note areas in which students may need support or enrichment, and plan how to respond."

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

The "Teacher Toolbox" is a page to provide instruction and guidance to administrators and instructional coaches. The page provides guidance on planning guides, scope and sequence, and planning for scope calendars. The "Teacher Toolbox" also provides a page dedicated to "Navigating the Digital Curriculum" that includes screenshots of pages and details the different tabs on each page.

The *Implementation Guide* includes information for administration and instructional coaches related to "Scope and Sequence" documents, "Suggested Scope Calendars," various instructional calendar options, planning guides, and teacher preparation and planning guides. For example, the "Scope and Sequence" document provides the TEKS, instructional days, mathematical process standards, English Language Proficiency Standards (ELPS), and "Explores" covered in each scope.

1.2 Lesson-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.2a	All criteria for guidance met.	7/7
1.2b	This guidance is not applicable to the program.	N/A
1.2c	All criteria for guidance met.	2/2
—	**TOTAL**	9/9

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.

Alignment with the TEKS and ELPS, as well as the mathematical process standards, is found in the "Grade 3 Scope and Sequence." For example, grade 3 Scope 3.7B, "Perimeter," includes TEKS 3.7B; ELPS 1.AEFH, 2.ADGH, 3.ABCDEFGH, 4.ADF (in "Explore 1"); and MPS 3.1ACDEF (in "Explore 1").

Detailed lesson plans with learning objectives, teacher and student materials, suggested timeframes, and assessments aligned to the TEKS and ELPS are present within the "Suggested Scope Calendar" in each scope. In Scope 3.7B, the objective for day 2 is "students determine the perimeter of polygons by adding the lengths of all sides," and the suggested time stamps are "Warm-up Options (5–10 minutes), Whole Group (45–60 minutes), Small Group (15–30 minutes), and Assessment Options (5–15 minutes)."

Materials include detailed lesson plans with learning objectives for each day. For example, in the "Suggested Scope Calendar," "students are introduced to an activity that uses addition and subtraction strategies to develop fluency with addition and subtraction within 1,000. Students will revisit the activity after the corresponding Explores have been completed."

The materials include detailed lesson plans with assessment resources aligned with the TEKS and the ELPS. For example, in the "Suggested Scope Calendar" for "Numbers on a Number Line," the planning guide has a link to "Explore 1—Open Number Lines," which includes the mathematical process standards and Language Supports listed in the assessment.

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).

Within each scope, the materials include a "Take-Home Letter" in English and Spanish with an overview of the scope, vocabulary, and at-home activities to reinforce learning. For example, the "Take-Home Letter" for Scope 3.4AB, 3.5A, includes "Tic-Tac-Toe: Try This at Home," which includes activities such as "Number Competition" and "Create a Problem."

The "Take-Home Letter" under the "Home" section in the grade 3 "Compare and Order Numbers" scope provides families with background information and strategies for the problems in the scope. It includes a tic-tac-toe game featuring activities to support their student in ordering and comparing numbers.

2. Progress Monitoring

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

2.1 Instructional Assessments

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.1a	All criteria for guidance met.	2/2
2.1b	All criteria for guidance met.	2/2
2.1c	The materials do not allow teachers to enable and disable accommodations, such as text-to-speech and content and language supports for individual students.	2/4
2.1d	All criteria for guidance met.	4/4
2.1e	All criteria for guidance met.	4/4
—	**TOTAL**	14/16

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

The materials list, define, and provide the purpose of the instructional assessments in the *Implementation Guide*. The assessments are classified as formative, diagnostic, or summative assessments. For example, the materials list "Accessing Prior Knowledge" as a diagnostic assessment and provide the purpose as "a brief probing activity to gauge students' prior knowledge before engaging in the content of the scope."

The *Implementation Guide* lists, defines, and provides the purpose for "Outside the Scope Assessments." These assessments include "Benchmark Assessments," "Pre-Assessments," "Mid-Assessments," "Post-Assessments," and "Growth Measure Assessments." For example, the materials explain that the three "Benchmark Assessments" provide "meaningful data that can be used to inform instruction in the classroom."

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

The materials include guidance to ensure consistent administration of instructional assessments by providing "Procedure and Facilitation Points" for each assessment within the scope. For example, in Scope 3.2D, "Compare and Order Numbers," the "Procedure and Facilitation Points" for the Skills Quiz include "1. Distribute the Student Handout to each student. 2. Prompt students to show what they know in completing the assessment. 3. Allow students to reflect on their performances using the Heat Map. 4. Once student data has been collected after the assessment, refer to the Scaffolded Instruction Guide in the Home section of this scope to differentiate instruction for each student."

The materials provide scripts to ensure consistent administration of instructional assessments. For example, "Show What You Know" assessments are provided within each scope. Each "Show What You Know" comes with "Procedure and Facilitation Points." For example, in Scope 3.7B, "Show What You Know, Part 1: Determine Perimeter" has the following "Procedure and Facilitation Points": "Reading assistance may be needed for some students to complete this activity. Students should individually complete the "Show What You Know" activity that correlates with the Explore activity already completed. Provide manipulatives as needed, especially those manipulatives used in the Explore. This element can be used to assess whether intervention is needed for each student."

The Skills Quiz is "[a] standards-based assessment to determine the student's ability to solve mathematical problems efficiently and accurately." The Skills Quiz measures what it is designed to measure and is an accurate assessment. For example, in the grade 3 Skills Quiz in Scope 3.4GK, "Multiplication Strategies and Algorithms," Question 1 asks, "Use any strategy or algorithm to solve the problem. 12 × 3 = ___."

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 provide digital and print versions of assessments. For example, in Scope 3.5E, Exit Tickets, checklists, Student Journals, and the Skills Quiz can be administered as editable Google files or print files. When assigning a new assignment, teachers can assign a calculator for student use. The materials provide three types of calculators to assign: a four-function calculator, a scientific calculator, and a graphing calculator.

The materials do not allow educators to enable and disable text-to-speech or content and language supports for individual students. Students can access a selection of accommodations that include changing the font size, text-to-speech, a highlighter, a dictionary, a notetaker, and a calculator.

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

Materials include diagnostic assessments with TEKS-aligned tasks or questions with varying complexity levels. One "Growth Measure Pre-Assessment" and one "Growth Measure Post-Assessment" are included as diagnostic or summative "Package Assessments." Each assessment offers multiple questions, and each question is aligned to the TEKS. Within the grade 3 "Growth Measure Post-Assessment," questions include multiple levels of complexity. For example, students are introduced to recall-level questions, such as "Which list shows only even numbers?" They are also introduced to application-level questions, such as "Which fraction is equivalent to 6/8?" The "Pre-Assessment" has higher-order-thinking questions, such as "Luis wrote this number sentence to show the answer to a word problem 426 + 263 = 689. Which word problem was Luis solving?" The question types include multiple-choice answers. Tasks prompt students

to count parts of a whole within a set and identify the correct fraction, use models to determine the answer to an equation, use data to draw conclusions from graphs, determine a set that correctly represents an addition or subtraction model, and use a set of objects to create an equation.

Materials include diagnostic assessments with interactive item-type questions or tasks. Three "Benchmark Assessments" are included as diagnostic or summative "Package Assessments." Each assessment offers multiple questions, and each question is aligned to the TEKS. Within the grade 3 "Pre-Assessment," questions include multiple levels of complexity. For example, students are introduced to recall-level questions, such as "Complete the statement to describe how the rectangle is partitioned. The rectangle is partitioned into ____." Students are also introduced to application-level questions, such as "The table shows the types of pets owned by students in Mrs. McCaul's class. Which bar graph represents the data shown in the table?" They are also introduced to higher-order-thinking questions, such as "Gail modeled a number shown below. Which two expressions represent the same number as Gail's model?" Questions are multiple-choice. Tasks prompt students to count parts of a whole within a set and identify the correct fraction; use models to determine the answer to an equation; use data to create graphs; identify a set that correctly represents an addition, subtraction, multiplication, or division model; and use a set of objects to create an equation.

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

Materials include multiple, TEKS-aligned formative assessment options within each scope that include, but are not limited to, Exit Tickets, observation checklists, and Skills Quizzes. In Scope 3.4K, 3.5BD, the Skills Quiz contains questions with varying levels of complexity, including solving multiplication and division problems using strip diagrams and area models, creating arrays, solving for missing factors, and writing equations from given models. In the "Multiplication Models" unit, "Explore 2—Arrays and Area Models" asks students to determine the total number of objects in a scenario by using array and area models." The "Procedure and Facilitation Points" include instructions for teachers to "monitor students, and check for understanding as needed using the following guiding questions." Questions include "DOK-1 What should your model look like to meet the challenge?" "DOK-2 Where do you see equal groups in the models we just built?" "Part II: USA Games, Inc. (Area Models)" and "d. DOK-3. Introduce this type of model, which is called an area model. Why do you think we call this an area model?"

Materials include a variety of formative assessments with TEKS-aligned tasks or questions, as well as interactive types of questions or tasks. Multiple formative assessment options are available within each scope, including, but not limited to, Exit Tickets, observation checklists, Skills Quizzes, and extension activities. For example, in Scope 3.3FG, 3.7A, the Exit Tickets for each "Explore" lesson progress through varying levels of complexity. In the Exit Ticket for "Explore 1," students are expected to draw a comparison of two fractions and determine if they are equivalent, draw a model to prove their answer, and write to explain their reasoning. In the Exit Ticket for "Explore 2," students are expected to determine if fractions on number lines are equivalent and explain their reasoning in writing. In the Exit Ticket for

"Explore 3," students are expected to use fractional parts to measure objects to the nearest half, fourth, sixth, or eighth. For example, in Scope 3.3FG, 3.7A, students are expected to compare fractions represented by models and number lines and to use number lines to measure objects to the nearest fraction (halves, fourths, sixths, or eighths). In "Show What You Know," Part 1, students are expected to write equivalent fractions using fraction models, create a fraction model to represent a fraction equivalent to the given fraction, and explain why the fractions are equivalent. In Part 2, students are expected to identify an equivalent fraction for pre-labeled points on a number line, write two equivalent fractions for an unlabeled point on a number line, and explain why the points on a number line are equivalent. Part 3 asks students to measure objects to the nearest fraction on a number line. The questions are not multiple choice.

2.2 Data Analysis and Progress Monitoring

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.2a	Materials do not 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.

The materials provide answer keys for each assessment, which provide scoring information and guidance for interpreting student performance. For example, in scope 3.6AB, the materials provide an answer key for each Exit Ticket, each "Show What You Know," the "Spiraled Review," the intervention checkup, "Acceleration," and the skills assessment. A rationale for correct and incorrect responses is not included in the materials.

In the Multiplication and Division Problem-Solving unit, under "Explore 1: Model and Solve One-Step Problems," the materials include an answer key for the Student Journal. This key provides scoring information and guidance for interpreting student performance, helping teachers assess students' understanding effectively. For example, in "Part III: Model and Solve," the guidance notes that students should choose their own solving strategy and includes an example to illustrate an appropriate approach. This supports flexible thinking and acknowledges multiple valid problem-solving methods. Additionally, the Exit Ticket answer key for this unit provides a sample equation and notes that "equations may vary," emphasizing that diverse strategies and representations are acceptable as long as they are mathematically sound.

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 multiple opportunities, such as Exit Tickets and "Show What You Know" opportunities, to respond to student understanding throughout the scope. For example, in Scope 3.4FHIJK, "Show What You Know, Part 1: Equal Groups and Shares" asks students to do the following: "Draw a model and write an equation to represent each problem. Label each part of the equation." The "Procedure and Facilitation Points" state, "This element can be used to assess whether intervention is needed for each student." This opportunity to assess for intervention is available for "Show What You Know," Parts 2, 3, and 4.

The materials provide "Intervention" lessons with targeted strategies aligned to each lesson within the scope. For example, in Scope 2.9G, the lessons included are "Real-World Relationships." After each lesson, the "Show What You Know" element can be used to assess whether intervention is needed for each student. The "Intervention" lessons within the scope align with each lesson. For example, "Intervention, Part I," is titled "Real-World Relationships." Step-by-step instructions for the lessons are included in each part.

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

The materials provide observation checklists for teachers to track student progress and growth in each scope. For example, Scope 3.3H provides a checklist of each standard covered within the scope. At the end of the checklist, reflection questions help teachers track overall mastery. The questions ask, "Is this student proficient in the skills addressed in this scope? If so, what is next for them? If not, how can I support them?"

The materials provide a "Heat Map" for students to track their progress across "Benchmark Assessments." For example, after taking the "*STEMscopes Texas Math* Grade 3 Pre-Assessment," the "Heat Map" instructions state, "Refer to your answers on the Benchmark Pre-Assessment. Next to each standard, color the question box green if your answer is correct. Color the question box red if your answer is incorrect."

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 for teachers to conduct checks for understanding throughout lessons and activities. For example, in Scope 3.5E, each "Explore" lesson has embedded DOK questions for teachers to ask at different points. "Explore 1" has prompts and questions, such as "Monitor and talk with students as needed to check for understanding by using the following guiding questions: DOK-2. 'How does your model show the relationship described on the card? Answers will vary. I made groups of counters for each box of sandals. Each group has eight counters in it to show the eight pairs of sandals in each box.'"

The materials provide guidance to help teachers check for understanding throughout lessons and activities. For example, in Scope 3.8A, 3.8B, the educator guidance states, "If students need additional support with creating a pictograph, prompt them to write on each circular sticker how many are represented by each sticker." The guidance also recommends that they use stickers to complete the gummy bear problem.

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	The materials do not allow teachers to enable and disable accommodations, such as text-to-speech and content and language supports, for individual students.	1/3
3.1e	All criteria for guidance met.	2/2
—	**TOTAL**	10/12

3.1a – Materials include explicit educator guidance for lessons or activities scaffolded for students who have not yet reached proficiency in prerequisite or grade-level concepts and skills.

The materials provide explicit, data-driven support within the "Scaffolded Instruction Guide" for students who have not yet reached proficiency. Based on assessment data (scope or MAP), students are grouped into four quintiles with targeted instructional recommendations. For example, in Scope 3.2C, 3.4AB, the "Scaffolded Instruction Guide" provides a framework for intervention for students within "4 quintiles based on the Scope assessments or MAP testing data." For the 25–50 percentile (Grade Level with Supports), the materials direct the teacher to "Intervention" lessons within the current scope, "Small Group Intervention, Part I." These lessons contain scripted plans for the teacher to follow.

The "Scaffolded Instruction Guide" provides teachers with entry points into the lesson for each level of student understanding based on data from the "Quintile Assessment," "Heat Map," or "MAP Growth Assessment" for each TEK in the scope. For example, in the grade 3 Scope "Area" for the TEK 3.6CD in the 0–25th percentile (Below Grade Level), the teacher is guided to use the "Fluency Builder—Area in Square Units." In the 25th–50th percentile (Grade Level) with supports, the teacher is directed to utilize the "Small Group Intervention, Parts I and II."

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 a Picture Dictionary in the "Explain" tab that supports academic vocabulary instruction through a slideshow or a printable format. Teachers receive guidance for using the vocabulary

during lessons, including discussion questions and ELPS-aligned strategies. Each "Explore" lesson ends with Language Supports to reinforce vocabulary connections.

The materials provide embedded Language Supports in each "Explore" lesson, including vocabulary guidance, real-world context support, and structured conversation tools. The Language Supports provide guidance for embedding support throughout the lesson. For example, in Scope 3.4DEFK, 3.5C, "Explore 1," the guidance states, "Provide examples and clarify what it means to have groups of a given amount of objects. It may be helpful to provide a visual example of this phrase along with the phrase translated into students' home languages." The guidance also states, "Explain the nonmath terms used for the manipulatives in this activity, such as counters and plates, and how that vocabulary will be used in student discussions of models."

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 a "Scaffolded Instruction Guide" in the "Home" tab of each scope, offering explicit guidance for enrichment and extension based on student data. For example, in Scope 3.7D, 3.7E, the educator guidance states, "As an extension, have students determine how many smaller containers could be used to fill the larger containers. Then, have students determine how many smaller units it takes to fill larger units of measurement."

The materials provide explicit educator guidance for enrichment for students who have demonstrated proficiency in grade-level content and skills. For example, in Scope 3.3CD, the educator guidance, which is located within the "Acceleration" tab, states, "Students explore connections and applications of math and other cross-curricular content through interactions with authentic, real-world media provided by Associated Press."

3.1d – Digital materials include accommodations, including text-to-speech, content and language supports, and calculators that educators can enable or disable to support individual students.

The materials do not allow educators to enable and disable text-to-speech or content and language supports for individual students. Students can access a selection of accommodations that include changing the font size, text-to-speech, a highlighter, a dictionary, a notetaker, and a calculator.

The digital version of the Skills Quiz allows students to use the toolbar at the top of the screen to turn on the dictionary function, enable text-to-speech, highlight text, and change the font size. Teachers can turn on and off only the calculator function. For example, in Scopes 3.8A and 3.8B, the teacher can assign the "Show What You Know" assignments, and those assignments have the option to assign a calculator. Text-to-speech, font size, and online dictionaries are embedded within the assignment.

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 provide opportunities for students to demonstrate their understanding of mathematical concepts in various ways. For example, in Scope 3.4GK, students can demonstrate their knowledge of multiplication strategies and algorithms using manipulatives, using verbal explanations, drawing pictorial models, and writing.

In the "Teacher Toolbox" for each grade level, the "Process Standards" section provides educators with detailed explanations of each process standard, including guidance on what teachers should do, instructional suggestions, and examples from lessons that illustrate how each standard is applied in classroom instruction.

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 explicit prompts and guidance for educators to build prior knowledge. For example, in Scope 2.5AB, the lesson activates students' prior knowledge with the following prompt about counting coins: "What do you already know about the relationships between place values?" Educator guidance states, "Discuss how students built seed bags for small and medium yards—ten seeds for small yards and one hundred seeds (ten tens) for medium yards. Then, ask how many seeds are needed for a large yard. Choral count by hundreds as gallon bags are added to the grocery bag, continuing until ten hundreds are counted, even if physical bags run out."

The materials provide explicit prompts and guidance for educators to anchor big ideas and highlight and connect key patterns, features, and relationships through multiple means of representation. Each lesson is anchored in a "Phenomena" activity. For example, in Scope 3.4GK, the "Phenomena" shows a father and child with a model race car. Students watch the video and then answer questions related to the "Phenomena" and multiplication. For example, the lesson states: "Show the Phenomena. Ask students the following questions: What do you notice? Where can you see math in this situation? Allow students to share all ideas. Explain the scenario to the class: You are in charge of gathering all the wheels for the robotic car contest. There are 27 students in the contest. How many wheels will you need?" Throughout the scope, students will use their knowledge to multiply by using multiple means of representation. For example, "Explore 1" introduces multiplication through the commutative and associative properties. Students begin by sharing what they know about solving multiplication problems, then work in groups to solve Scenarios 1–3 in their Student Journal using a number line, arrays, and equal groups. "Explore 2" focuses on array models, "Explore 3" introduces area models and the distributive property, and "Explore 4" teaches multiplication using algorithms.

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

The materials provide various instructional approaches, including collaboration, structured conversation, and direct instruction. For example, in Scope 3.2D, "Explore 1," students work in groups to find the time on analog clocks. The guidance states to have students write two comparison statements in their Student Journals using symbols. If needed, they can support understanding by connecting the symbols to a number line, explaining that a number farther left is less than one on the right, and the "less than" symbol points to the left. If students need additional support, the teacher has "Intervention" lessons that include direct instruction for students. For example, the "Small Group Intervention, Part I," lesson states, "Ask students to share what they know about comparing numbers, first with a partner, then with the group. Give each pair place value disks and have them build a number between 24,000 and 27,000. Ask: 'What number did you create?' and 'What is the value of each digit?'"

The materials provide various instructional approaches, including collaboration, structured conversation, direct instruction, and games. For example, in Scope 3.3H, students work with a partner to collect and sort data. Educator guidance states, "Tell students they will help build pizza orders for Uncle Luigi's Pizzeria using fraction circles or tiles to model each order from their Student Journals. They will draw their models, plot each fraction on a number line, and write two comparison statements. Check for understanding by asking questions like, 'How many total pieces make up this pizza? How do you know?'" Then, students engage in a conversation with the following educator guidance: "Choose a Structured Conversation Routine to facilitate the following question: DOK-3 How could you compare two fractions with the same denominator without a model?" The materials also provide students with interactive games that review the content taught. For example, in Scope 2.9F, one interactive game is called "Interactive Practice: Paintball Challenge."

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

The materials provide multitiered intervention methods, including small-group, collaborative, and individual opportunities. For example, in Scopes 3.4AB and 3.5A, the "Intervention" lessons include guided, collaborative, and independent practice as well as instruction within small-group, partner, and individual settings. In Part 1, the lesson states, "Pair students, and ask them to discuss what they know about diagrams. As students are discussing, walk around and highlight thinking processes, intervening when necessary. Invite a few students to present their thoughts to the class."

The materials provide multitiered intervention methods, including small-group, collaborative, and individual opportunities. For example, in Scope 2.11ABCDEF, the "Intervention" lessons include guided, collaborative, and independent practice as well as instruction within small-group, partner, and individual settings. In Part 1, the lesson states, "Provide each student with a geoboard and a rubber band, and model how to create a figure with two sets of parallel sides. Have students do the same, and discuss how

the shapes may look different but share the same key attribute. Repeat the process for the remaining quadrilaterals, labeling each with its correct geometric name."

Educator guidance states, "If students struggle to create a frame, have them start with a rectangle." Teachers can use guiding questions, like "Does this fit the attributes requested?" and "How can we adjust it to meet one attribute?" Teachers can encourage students to make small changes until the figure matches the order.

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

The materials provide enrichment and extension materials to promote engagement, as well as educator guidance for each activity. For example, in Scopes 3.9A, 3.9B, 3.9C, 3.9D, 3.9E, and 3.9F, the "Acceleration" tab provides a real-world scenario for students to explore. Students will watch a video and work with a partner or group to answer related questions. The educator guidance states, "Have students watch the video, then discuss as a class the pros and cons of using robots for work." Teachers ask why the construction company bought a brick-laying robot and why budgeting is important. Students complete the student page independently or with a partner.

The materials provide enrichment and extension materials to promote engagement, as well as educator guidance for each activity. For example, in Scope 3.3CD, the "Explore 2" lesson provides an opportunity for extension. The educator guidance states, "As an extension, challenge students to think of another scenario in which they observe fractions every day. Students can use the counters, fraction tiles, or fraction circles to model the scenario . . . This Explore could also be extended by challenging students to compose and decompose fractions in other ways, including non-unit fractions."

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

The materials provide guidance to support educators in providing feedback within the lesson. For example, in the "Explore" lessons in Scope 3.5E, the materials provide guidance, such as "Monitor and talk with students as needed to check for understanding by using the following guiding questions: How does your model show the relationship described on the card?"

The materials provide guidance to support educators in providing feedback within the lesson. For example, in the "Intervention" lessons in Scope 3.7C, the materials provide guidance, such as "When students are ready, distribute a set of Time Scenario Cards D–F to each group of students. Allow students to work together using their Time Work Mats to solve each problem. Listen to students as they work, and address misconceptions as they arise."

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 support students at different English proficiency levels. In Scope 3.2AB, "Explores 1–3" align with ELPS 2.C, focusing on varied sentence structures and connecting words. Teachers use sentence stems to encourage math talk, like "I needed ten groups of __" and "__ is ten times greater than __." Students explain base ten patterns aloud, with partners recording and revising their ideas, and may present using base ten blocks. Math Chats include sentence frames to guide discussion. Strategies like choral counting help build both language and math skills.

The proficiency-level descriptors state that emergent bilingual (EB) students will "match pre-taught content-area vocabulary presented orally or in print" at the preproduction level with the most teacher-scaffolded support, "use pictorial models to understand spoken content-area vocabulary" at the beginning level, "use explicitly taught content-area vocabulary to comprehend oral classroom instruction and interactions" at the intermediate level, "demonstrate comprehension of familiar content-area vocabulary heard in the classroom by responding orally or in writing with increasing accuracy" at the high-intermediate level, and "demonstrate comprehension of familiar and unfamiliar content-area vocabulary heard in the classroom by responding orally or in writing with accuracy" at the advanced level.

In the "Teacher Toolbox" within each grade-level scope, the "Multilingual Learners" tab provides general information on "Language Acquisition Progression" to support teacher understanding. A "Resources and Tools" section outlines where integrated supports can be found within the scopes. One key resource is the "Proficiency Levels by Domain" chart, which describes what students at the beginner, intermediate,

and advanced levels can do with proper scaffolding. The "Resources and Tools" section also includes a file of sentence stems for explaining, agreeing, disagreeing, clarifying, and adding on. Integrated accessibility features are highlighted, such as tools that allow students to listen to text, define words in real time, take notes, and highlight key phrases. Other embedded supports include Language Connections, Virtual Manipulatives, Virtual Learning Videos, My Math Thoughts/Math Story, Problem-Based Task/Mathematical Modeling Task, and Structured Conversation Routines.

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 provide resources for educators and guidance to use within the program. For example, within the "Linguistic Diversity" section of the "Teacher Toolbox," there is a document titled "Proficiency Levels by Domain." The materials state that teachers can use this tool to help identify a student's English proficiency level by analyzing how students are able to interpret and produce language. The document provides identifiers for different levels of language acquisition. For example, a student at the beginning stage might demonstrate the following characteristics for reading: "When implementing proper scaffolding, students at a beginner level can understand texts structured around a subject such as related words, repeated words, repeated phrases, repetitive language patterns, and related images."

In the "Teacher Toolbox" within each grade-level scope, the "Multilingual Learners" tab provides general information on "Language Acquisition Progression" for teacher background knowledge. Below the "Language Acquisition Progression" content is a list of "Resources and Tools" that shows where the integrated resources can be found within the scopes. The first section shows a chart for "Proficiency Levels by Domain." The chart provides examples of what beginner-level, intermediate-level, and advanced-level students are able to do given proper scaffolding. Within this section, there is a file for "Sentence Stems" that provides sentence stems for explaining, agreeing, disagreeing, clarifying, and adding on. Example prompts include the following: "I can visualize this problem by . . ." and "My answer is reasonable because . . ." The document points out the integrated accessibility features by stating, "Across the curriculum, we have embedded tools that allow students to listen to the text being read, find the definition of words at the moment, make notes, and highlight words and phrases." The other highlighted areas include Language Connections, Virtual Manipulatives, Virtual Learning Videos, My Math Thoughts/Math Story, Problem-Based Task/Mathematical Modeling Task, and Structured Conversation Routines.

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 consistently provide opportunities for oral discourse, with structured routines in each scope. For example, in Scope 3.7C, students learn academic vocabulary through a slideshow where teachers read and discuss words, ask questions to deepen understanding, and connect terms to students' experiences. Crosslinguistic support links English terms, like *hour* and *minute*, to Spanish equivalents for EB students. Further discourse happens during group work and Math Chats, where teachers use guiding questions to facilitate discussion. Sentence stems are provided to help students rephrase, agree, or disagree respectfully, ensuring meaningful dialogue for all learners, including EB students.

In "Scope Multiplication Models," "Explore 2—Arrays and Area Models," students build academic vocabulary, comprehension, background knowledge, and crosslinguistic connections through structured activities and Math Chats. Acting as shelf-stocking experts, students use Game Board Request cards (also available in Spanish) to arrange items on shelves with a partner, create visual models, and record their work by drawing arrays, writing equations, and completing answer statements in their Student Journals. After the activity, students engage in Math Chats to deepen understanding, discussing questions like how arrays and area models relate to other multiplication models by highlighting that each row represents an equal group. The lesson provides sentence stems, such as the following, to support language development: "Our model should have ___ rows of ___ because ___" and "We can find the total amount of items by ___." Students then apply this vocabulary in the Exit Ticket, reinforcing both oral and written discourse. Embedded Language Supports help teachers facilitate meaningful academic conversations for all learners.

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	All criteria for guidance met.	4/4
—	**TOTAL**	6/6

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

In the "Multiplication Strategies and Algorithms" scope under "Explore 2—Commutative and Associative Properties," students engage in an activity where they use manipulatives to build three different models that show the solution to a problem. Students also draw the models and write a corresponding equation to represent the models. Students use number lines, arrays, equal groups, and equations to represent the problem. The Exit Ticket assesses students' ability to use models and equations to show two different processes that could be used to find the value of the given expression.

In Scope 3.4DEFK, 3.5C, "Explore 1," students answer questions about equal groups and repeated addition. During the Math Chat, students answer questions such as the following: "How are the models and multiplication equations related?" During "Explore 2," students use arrays and area models to solve multiplication problems. The Student Journal provides students with the opportunity to build the array, complete a sentence frame to describe the operation, and write the multiplication equation for a series of problems. In "Explore 3," students use number lines and skip counting to solve multiplication problems. In "Explore 4," students use the term "times as much" to solve multiplication problems and define the relationship represented by multiplication equations. For example, during the Math Chat, students describe how "times as many" problems are similar to or different from other multiplication problems they have solved. The materials include an interactive game for students to practice multiplying with array models. The materials provide an Exit Ticket that assesses the content for each "Explore" section.

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

In Scope 3.7C, "Explore 1," students use analog clocks to find the start and end times of different activities. The Math Chat provides DOK 2 questions for students to discuss. Students then complete task

cards and share with their class how their group arrived at the answers. Students compare the different strategies shared. In "Explore 2," students solve real-life-scenario problems involving different intervals of time using analog clocks and number lines. The Math Chat provides questions on DOK levels 1 and 2. The "Elaborate" section includes games for students to practice finding start and end times.

The "Acceleration" section within each scope provides extension and enrichment opportunities. "Acceleration" activities in Scope 3.7C increase in rigor and complexity. Students engage in an activity called "Math Today—Ice Swimming," where they watch a video about ice swimming competitions and answer related questions, such as the following: "How long did the swimmer’s activities take?" Within each "Explore" section, the materials provide extension questions. For example, in "Explore 2," the extension activity prompts students to create scenarios and solve them using the floor number line.

4.2 Coherence of Key Concepts

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

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

The materials provide a horizontal layout that builds on previous scopes within the grade level. For example, before addressing the area, the materials address multiplication models in Scope 3.4DEFK, 3.5C. In this scope, students "[r]epresent multiplication facts by using a variety of approaches, such as repeated addition, equal-sized groups, arrays, area models, equal jumps on a number line, and skip counting." This lays a foundation for later scopes.

Later, the materials address finding the area of a model in Scope 3.6CDE. In this scope, students are expected to determine the area of rectangles with whole-number side lengths in problems using multiplication related to the number of rows times the number of unit squares in each row. This scope requires the skills taught in prior scopes, and it makes the connection to previous learning by ensuring that the teacher emphasizes the connection between multiplication and finding the area. For example, the teacher prompt states, "Students should record the equation they could use to find the area of the farmer's garden. Students' equations should show the number of rows multiplied by the number of corn plants in each row. Emphasize the connection that students are actually multiplying the length and width of the rectangle when they do this."

The materials provide a "Course Rationale" describing the connection between scopes within the grade 3 curriculum. For example, the "Grade 3 Course Rationale" states, "Each scope in Grade 3 STEMscopes Math is carefully crafted to build on previous knowledge, ensuring a seamless transition between concepts, as well as fostering a deep, comprehensive understanding of mathematics. This structured approach prepares students not only for future mathematical challenges but also for applying their knowledge to real-world situations."

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

The materials provide a vertical alignment overview within each scope. For example, in Scopes 3.9A, 3.9B, 3.9C, 3.9D, 3.9E, and 3.9F, the "Coming Attractions" section within "Content Support" provides the following vertical alignment overview: "Students continue to build on this concept as they extend their

financial knowledge. In fourth grade, students compare fixed expenses and variable expenses and compare various savings options. Additionally, students learn how to calculate profit. They describe how to allocate an allowance to several categories, including spending, savings, and sharing. Finally, they study the purposes of financial institutions."

The materials provide vertical alignment through the use of big ideas. For example, Scope 3.4AB, 3.5A, addresses addition and subtraction strategies. "Content Support" provides insight into students' prior learning: "Number lines have been used since first grade, and students are capable of ordering numbers, identifying whole numbers in marked positions on number lines, and marking locations of whole numbers on number lines. Students have also been using concrete and pictorial models, such as number lines, to represent addition and subtraction strategies. Additionally, students have learned the role of the equal sign and developed equations from models." In addition, the "Content Support" page offers a glimpse into the upcoming topics in grade 4: "In fourth grade, students solve multistep problems involving whole numbers using all four operations. In addition, students continue working with diagrams and learn to solve equations with unknown quantities represented by a letter."

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 materials include prompts to connect concepts across lessons. For example, in Scope 3.2AB, students use the base ten system to explore place value. "Explore 1" reviews the base ten system for place value and connects to prior learning by asking, "What do you already know about the relationships between place values?" "Explore 2" moves on to compare numbers and activate prior knowledge by asking, "What do you remember about the values of each digit in a number?" "Explore 3" compares numbers through composing and decomposing. Prior knowledge is accessed by prompting, "Describe ways you have composed and decomposed numbers in the past."

Embedded teacher support states, "Students continue to build on this concept as they extend their understanding of place value. In fourth grade, students are expected to demonstrate comprehension of place value represented in both standard form and expanded form up to 1,000,000,000. They are also able to represent place values of decimals in the hundredth place. Students are expected to understand that moving a digit to the left increases its value by 10 times, while moving a digit to the right decreases its value." 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 materials include prompts to connect concepts within the current grade level and future grade levels. For example, in Scope 3.3CD, students compose and decompose fractions. The lesson begins with a series of questions, including "What do you remember about fractions?" Then, the term "unit fraction" is defined. In the next lesson, students are asked "to remind their shoulder partner what a unit fraction is. A

unit fraction is one equal part of a whole." Students then move on to adding unit fractions. The lesson concludes with a Math Chat. Within the chat, students are asked questions relating to measuring in prior lessons, such as "How does this compare to ways you have modeled fractions before?" The "Coming Attractions" section of "Content Support" states, "In fourth grade, students build on the concepts of composing and decomposing fractions. Students practice adding unit fractions that extend beyond one whole, which include improper fractions or mixed numbers as the sum of fractions with equal denominators. Students are asked to decompose a fraction using addition in more than one way. They must be able to relate the various parts of a model to a corresponding equation as they continue to transition from the concrete and representational models to understanding the abstract notation of these concepts."

4.3 Coherence and Variety of Practice

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.3a	All criteria for guidance met.	2/2
4.3b	All criteria for guidance met.	2/2
—	**TOTAL**	4/4

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

Each scope provides a "Spiraled Review" opportunity that revisits skills from prior scopes. For example, in Scope 3.2AB, "Place Value Relationships," the "Spiraled Review" offers questions that address addition problem-solving, number relationships within a table, multiplication models, and measurement. For example, Question 1 asks, "Everyone decided to warm up before they started taking turns playing the role of coach. Jordan and Michael both kicked the ball twice. Michael kicked his football a total of 46 feet. Jordan kicked his football a total of 34 feet. Use a model to show how you can find the total number of feet they kicked their balls combined."

The materials provide multiple opportunities to use multiplication and division strategies across learning pathways. For example, multiplication models are introduced in Scope 3.4DEFK, 3.5C. These strategies are used again in Scope 3.4K, 3.5BD, to solve multiplication and division word problems, such as the following: "A neuroscientist is growing cells in 6 different Petri dishes. Each Petri dish has 15 cells in it. How many cells are there in all? Use the diagram to write an equation, and then solve." Multiplication models are also used in Scope 3.6CDE when students are asked to find the area of a plane figure.

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

The materials provide interleaved practice opportunities for students to practice skills and concepts. For example, in Scope 3.4K, 3.5BD, "Multiplication and Division Problem Solving," students are expected to solve word problems using multiplication, division, addition, and subtraction. For example, "Explore 3" asks, "Vincent spent $10 on a 1,000-piece puzzle. He then bought five small puzzles for $3 each. How much money did Vincent spend on puzzles?" This scope uses skills learned in Scope 3.2C, 3.4AB, "Addition and Subtraction Strategies," which includes the "place value strategy (composing and decomposing numbers) and the number line strategy." This scope also uses prior knowledge from Scope 3.4DEFK, 3.5C, "Multiplication Models," and Scope 3.4FHIJK, "Division Models."

The materials provide interleaved practice opportunities for students to practice skills and concepts. For example, Scope 3.3FG, 3.7A, "Equivalent Fractions" uses skills taught in Scope 3.3ABE, "Represent and Interpret Fractions." In Scope 3.3ABE, students answer questions, such as "How does the denominator help us read the fraction?" and "How can you determine the numerator for each fraction?" In Scope

3.3FG, 3.7A, students apply their knowledge of fractions to answer questions, such as "How many eighths are needed to equal 1/4?"

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.

In Scope 3.4FHIJK, the "Fluency Builder" matching game supports students in interpreting, analyzing, and evaluating pictorial models by matching them to equations. One example from the game includes the equation 12 ÷ 3 = 4, and students identify the correct visual model that represents this division. At the end of the activity, students record two of their matches on the Student Recording Sheet and explain why the cards are a match. They are encouraged to share and discuss their reasoning with a partner to reinforce understanding.

The materials provide questions that encourage students to interpret, analyze, and evaluate mathematical models. One question asks, "How can the chart from the first page of your journal help you with creating your cityscape? If we use our chart, it will help us know which solids we can use in each section. We can make sure we are using the correct solids by checking the number of faces, curved surfaces, edges, bases, and vertices." Teachers can choose a Structured Conversation Routine to facilitate the following questions: "Why could you place more than one type of building in each section? What types of three-dimensional objects do you see in real life?"

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

The materials provide the opportunity for students to create concrete and pictorial models of mathematical situations. For example, in Scope 3.7B, students use measurement skills to find the perimeter of different models. First, students find the perimeter of shapes using manipulatives, and then they draw and label pictorial models in their journals.

The materials instruct teachers to explain that students will determine the total distance around a figure to find how much material is needed to line the edge of a table. Teachers are directed to introduce the concept of perimeter and provide each student with a Student Journal. Student groups are then assigned an order and work together to choose the correct unit of measurement, select a suitable measurement

tool, measure each side of the figure, draw and label the figure, calculate the perimeter, and complete the related journal questions.

In the grade 3 Scope "Multiplication and Division Problem Solving, "Explore 1," students work collaboratively to model and solve real-world multiplication and division problems. In one task, they are given 56 two-color counters to model the following scenario: "three kindergarten rooms, with five students in each room drinking strawberry milk." Students use the counters to find the total number of milks needed. In another activity, students model division by representing 56 chicken fingers grouped in sets of eight. They draw circles to represent boxes and use marks inside the circles to represent the chicken fingers. They are then asked, "How many boxes need to be ordered?" These activities support students in developing a concrete understanding of grouping and repeated addition/subtraction.

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

In Scope 3.6CDE, "Explore 1" and "Explore 2," students solve area word problems by applying previously learned strategies in new contexts. In "Explore 1," students determine the area of rectangles, and teachers are prompted to guide discussions using the corn plants image, highlighting the rectangular shape and emphasizing that opposite sides of a rectangle are equal. In the "Accelerate" section, students extend their understanding by calculating the area of composite shapes formed by combining multiple rectangles, such as sections of land impacted by a landslide.

The materials provide opportunities for students to apply their conceptual understanding to solve new problems and transfer knowledge to different contexts. For example, in "Explore 1," the lesson guides teachers to discuss how students build bags of seeds for different yard sizes. Students first group 10 seeds to make a bag for small yards, then group 10 tens (100 seeds) for medium yards. They are then prompted to determine the number of seeds needed for a large yard by counting in hundreds, even beyond the available bags, up to 10 hundreds. Students record an expression, a model, and the total number of seeds for the large yard in their Student Journal.

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 include tasks that build student automaticity for grade-level math. For example, in the "Represent and Interpret Fractions" unit, the "Fluency Builder" features a matching game where students pair fraction models with their names and explain why they match. The "Spiraled Review—Destiny's Garden" provides practice on key content, asking students to solve equations, create arrays, read tables, and draw pictorial models.

In the "Elaborate Tab" of the grade 3 Scope "Addition and Subtraction Problem Solving," teachers receive one "Fluency Builder" in which students play a matching game, a game of Go Fish, and a board game where students match a visual representation of a problem to an equation. For example, students match a part-part-whole graphic to the equation that matches. For example, in Scope 3.4K, 3.5BD, students can play an interactive game online that allows them to solve multiplication equations.

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

The materials provide efficient, flexible, and accurate mathematical procedures throughout learning pathways. For example, students explore multiplication by using various models. Students use manipulatives, pictorial models, and equations to represent multiplication problems. Later, students apply this knowledge to solve multiplication word problems. In Scope 2.4AB, students solve multiplication problems. The scope begins with multiplication using equal groups and repeated addition, arrays and area models, number lines, and skip counting. The strategy advances to "times as many." At the end of the scope, students use a strategy of their choice to solve multiplication questions. The educator guidance asks students to reflect on their learning by asking the question, "Why could the problems be modeled in so many different ways?"

The materials provide efficient, flexible, and accurate mathematical procedures throughout learning pathways. For example, in Scopes 3.4DEFK, 3.5C, and 3.4FHIJK, students build their knowledge of multiplication and division strategies. The scopes use different models for students to use to multiply and divide. In Scope 3.4K, 3.5BD, students apply their knowledge from the previous lessons to solve one- and

two-step word problems with multiplication, division, addition, and subtraction. The lesson states, "Challenge students to collaborate with their groups to use the counters and the diagram on their Student Journals to represent the three kindergarten classrooms and their strawberry milk order. Students will likely remember using diagrams to represent multiplication and division in previous scopes."

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

The materials provide opportunities for students to evaluate the efficiency, flexibility, and accuracy of mathematical representations throughout learning pathways. For example, in Scope 3.4K, 3.5BD, students are encouraged to use multiple strategies to solve multiplication and division problems. The scope introduces students to strategies to solve one-step, two-step, and combined one- and two-step problems. In "Explore 2," students model and solve two-step problems. The educator guidance states, "Instruct students to solve the problem using any strategy they choose (if they have not solved it already). Allow students to use the base ten blocks for support if needed."

The materials provide opportunities for students to evaluate the efficiency, flexibility, and accuracy of mathematical representations throughout learning pathways. For example, in Scope 3.4FHIJK, students are encouraged to build a connection between multiplication and division. Later, in Scope 3.4DEFK, 3.5A, students solve multiplication problems using concrete models and pictorial representations. In "Explore 1" of Scope 3.4FHIJK, teachers guide students to solve division problems by connecting them to prior learning. Teachers monitor understanding by asking questions like "What do you know?" (e.g., total is 48, with 8 in each group), "What are you trying to find?" (number of groups), and "How can multiplication help solve this?" (e.g., thinking "___ groups of 8 equals 48" and skip counting by 8). Teachers emphasize the link between multiplication and division, showing how division can be seen as a multiplication problem with a missing factor and using arrays to reinforce this connection.

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

The materials provide educator guidance to help students select increasingly efficient approaches to solve math problems. Each grade level introduces strategies for addition and subtraction in an order that increases efficiency. For example, Scope 3.2C, 3.4AB, introduces estimation as a strategy for addition and subtraction. Educator guidance in "Explore 3" states, "Ask students why estimating solutions is helpful and what strategies they can use to estimate 643 + 281 (e.g., rounding or using compatible numbers). Have them estimate the sum in their Student Journals and share their strategies. Then, students build the numbers with base ten blocks and answer questions like, 'What is the total number of trading cards?' (924) and 'What other strategies can you use to solve addition?' (e.g., adding by place value, decomposing

numbers, or using a number line). Students select a strategy, solve the problem on their Addition Work Mats, and record their work in their journals."

The materials provide educator guidance to help students select increasingly efficient approaches to solving math problems. For example, Scope 3.4GK reviews multiplication strategies. The educator guidance states to use a Structured Conversation Routine to explore the following questions: Why did we build arrays and area models before learning the algorithm? (Answers may include understanding multiplication by place value and visualizing why the algorithm works.) Which algorithm do you find easier, and why? (Some prefer the standard algorithm due to fewer steps; others like partial products for seeing multiplication by each place value.)

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 materials explain how concepts are addressed both conceptually and procedurally. For example, the "Content Support" section of Scope 2.2AB, 2.7A, includes the conceptual and procedural processes of finding the area of rectangles. The "Content Support" section states, "Students should have experience using unit squares to discover the length and width of rectangles. This leads to the realization that a more efficient way of finding the area of rectangles, particularly larger rectangles, is multiplying the length by the width, like they do when finding the total number of objects in an array." Teachers guide students to move from conceptual models with unit squares to procedural problems, using models without unit squares, to write a multiplication equation.

The materials explain how concepts are addressed both conceptually and procedurally. For example, in Scope 3.3ABE, "Explore 1," the conceptual process of representing fractions is taught using manipulatives and pictorial models. The educator guidance states, "Have students read Card 1: The Windows and create a model of the situation using any of the manipulatives they choose—direct students' attention to the question on their Student Journals. Discuss the following questions: What is the question asking? It is asking for the fractional part of the window that was washed. Look at your model. How does your model show the number of windowpanes that were washed? Answers will vary. We used red tiles for the washed panes and blue tiles for the unwashed panes. How many windowpanes make up the whole window? 8. After building concrete models, the lesson moves to the procedural representation of writing an equation. The educator guidance provides step-by-step instructions. "Based on this relationship, what fractional name can we give each windowpane? The windowpanes are eighths. Each one is an eighth of the window. DOK-1 How many windowpanes were washed? 5. If five windowpanes were washed and each one is an eighth, what fractional part of the window has been washed? Five-eighths. Explain how this amount can be written in fraction notation."

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

The materials include opportunities for students to use concrete objects, pictorial models, and abstract strategies throughout the scopes. For example, in Scope 3.4FHIJK, students add using concrete models to divide numbers. The educator guidance states, "Prompt students to use the counting objects and plates

to model what is happening and show their thinking. Actively monitor groups while they work." The Student Journal for this activity states, "Build a model to solve the problem for each scenario. Draw a picture of your model." Instruction transitions from pictorial representation to an abstract model as students are directed to write an equation, label what each number represents, and write a solution statement.

The materials include opportunities for students to use concrete objects, pictorial models, and abstract strategies throughout the scopes. For example, in Scope 3.4DEFK, 3.5C, students use different strategies to multiply. In the Skills Quiz, students use algorithms to solve equations with missing terms and pictorial models to write equations, and have the option to use manipulatives to help solve addition and subtraction problems. For example, the "Procedure and Facilitation Points" state, "Allow students to use manipulatives by request." Question 1 asks, "Jenna drew three rows of shapes. There were eight shapes in each row. How many shapes did Jenna draw? Draw a model. Write an equation, and solve the problem." Question 3 asks, "Ted was asked to set up extra tables in his school's cafeteria. He made four rows of 7 tables. Use the number line below to represent the total number of tables Ted set up."

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 provide opportunities for students to connect concrete and pictorial models to abstract concepts. For example, in Scope 3.7B, the materials include a set of stations for students to determine the perimeter with concrete objects and draw diagrams to represent the measurement. For example, the lesson guidance states, "Tape the given dimensions of the geometric figures below with masking or painter's tape on a floor or wall and label them with the corresponding letter written on a note card. Tape the figures around the room in an order that will facilitate smooth transitions between stations, with students moving through the stations in alphabetical order. If the classroom is not big enough, modify these dimensions to fit the available space or build them in a hallway, gym, or outdoor space." To facilitate the activity, the teacher has the following guidance: "Emphasize that they will be determining the total distance around the figure in order to find how much material is needed to line the edge of the table. Introduce the distance around a figure, which is called the perimeter. Distribute a Student Journal to each student, and assign each group to an order. For each order, students should collaborate to determine the correct unit of measurement, select the appropriate measurement tool, measure the figure's sides, draw and label their figure, calculate the distance around it, and answer the questions in their Student Journals. The Student Journal states, "For each order, draw and label a model of the table and determine the perimeter."

The materials offer opportunities for students to create concrete and pictorial models. For example, in Scope 2.3ABCD, students practice solving multiplication and division problems. They begin by modeling problems, then move on to creating pictorial models. Students read a scenario and use counters to model a problem as the teacher invites them to create visual models or diagrams, discuss and write

multiplication and division equations with a variable for the unknown, choose an appropriate problem-solving strategy, and compose a statement that explains their solution.

The materials provide opportunities for students to discuss the relationships between concepts. For example, in Scope 3.4GK, the material provides question stems for teachers to help students make connections. Educator guidance states, "DOK-2. What is the relationship between an array and an area model? They show the same thing, but an array shows every piece. The area model just shows the dimensions of each part. It is faster to draw an area model than an array. Both can be used to find the product when multiplying. They both show how a factor can be decomposed when multiplying. What is the relationship between the equation and the area model?"

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.

The materials provide opportunities for students to use manipulatives and visual supports within lessons. For example, in Scope 3.3H, students compare fractions using fraction circles and tiles. In a lesson with the theme "Uncle Luigi's Pizzeria," student pairs build pizza orders from their Student Journals by modeling fractions with manipulatives, drawing their models, plotting each fraction on a number line, and writing two comparison statements. Language Supports are included, such as sentence frames to help students explain their models: "The amount of . . . is greater." "There are fewer . . . than . . ." ". . . pieces are greater than . . . pieces." "The pieces . . . (are/are not) the same size."

The materials provide opportunities for students to develop academic mathematical language through visuals, manipulatives, and other language development strategies. For example, in the unit "Two and Three Dimensional Figures—Engage," the "Procedure and Facilitation Points" guide teachers to ask students to explain the difference between two- and three-dimensional figures and name two-dimensional shapes. Teachers then display three-dimensional solids and prompt students to describe their attributes. After completing the unit's "Explore" activity, students engage in "Hook: Catch a Thief," identifying two- and three-dimensional figures on picture cards. Following the activity, teachers guide students to connect their knowledge of attributes to their ability to identify the figures accurately.

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

The materials 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 "Multiplication and Division Problem Solving" unit, the "Engage" activity "Hook: Candy Corn" includes guidance in the "Procedure and Facilitation Points" section for leading whole-group discussions using the following questions: "How many days will the candy corn last? What did you do first to solve this problem? What equation represents this part of the problem?" Teachers are prompted to extend vocabulary use by having student groups display their solution processes, participate in a gallery walk to

observe others' strategies, and engage in a whole-group discussion to compare problem-solving methods.

Embedded within the materials is guidance to scaffold, support, and extend students' use of academic mathematical vocabulary when communicating with peers and educators. For example, in the "Equivalent Fractions" unit, the Exit Ticket prompts students to "explain your reasoning" for each question. In the "Accelerated" tab, the activity "Math Today: Sewing to Show Appreciation" guides educators to challenge students through discussion. Teachers are encouraged to have students share "I notice . . ." and "I wonder . . ." statements and explore how math is used in the scenario. One question asks, "If a volunteer needed to trim a piece of cotton eight inches long, which fraction equivalent to one-half could she use?"

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

The materials include embedded guidance to support the application of appropriate mathematical language and academic vocabulary in discourse. For example, in "Explore 2: Combine Unit Fractions" of the unit "Compose and Decompose Fractions," educators are instructed to facilitate a Math Chat where students share their observations and learning. Teachers are guided to use a Structured Conversation Routine to support the discussion of questions, such as "What are some observations you made through the activities?" (DOK-2), "How does this compare to ways you have modeled fractions before?" (DOK-3), and "What is the relationship between the models and equations?" (DOK-3).

The materials offer Language Supports for students to use academic vocabulary in context within lessons. In Scopes 3.4AB and 3.5A, students solve addition and subtraction problems and engage in Math Chats with prompts and questions, such as "Describe your process for representing problems. Which strategies were most efficient?" Students explain their thinking using models and equations. The materials also provide scaffolded conversation support, including sentence stems such as "To represent the problem, I . . ." and "I know my solution is reasonable because . . ." Sentence stems help students—especially multilingual learners—communicate their reasoning during group work.

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

The materials provide prompts and guidance for educators to facilitate math-related conversations. For example, in Scopes 3.9A–3.9F, students engage in a Math Chat focused on solving addition and subtraction equations using the part-part-whole model. Sample questions include the following: "What skills and education make a successful lemonade stand owner?" (e.g., money management, math skills, responsibility, friendliness, and organization), "What are examples of goods needed for your lemonade stand?" (e.g., lemons and sugar), "What services did your mother provide?" (e.g., buying goods from the store), "What are reasons to save money?" (e.g., buying necessities and preparing for unplanned

expenses), and "What would happen if you had an unplanned expense without enough money to pay for it?"

The materials include embedded guidance to facilitate mathematical conversations, helping students hear, refine, and use math language with peers. For example, in the unit "Compare and Order Numbers," the "Hook" activity "Video Game Showdown" includes "Procedure and Facilitation Points" that instruct educators to discuss questions such as "What information do we know?" and "What information do we need to find out?" Students are then directed to turn and talk to share how they would solve the problem.

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 include embedded guidance to anticipate a variety of student answers, with exemplar responses supporting place-value understanding in Scope 3.2AB. Sample guiding questions prompt students to explain how digits in different places affect value and to recognize when a digit is ten times greater or less than another. The materials also include embedded guidance to support or redirect inaccurate responses. For example, in Scope 2.2CD, common misconceptions are identified, such as misunderstanding scaled intervals, forgetting steps in multistep processes, and confusing dot plots with frequency charts.

The materials include embedded guidance to anticipate a variety of student answers, including exemplar responses, and support or redirect inaccurate thinking. For example, in the "Addition and Subtraction Strategies" unit, the "Engage-Hook Basketball Attendance" section provides questions and sample answers. One question asks, "What are we trying to find out?" Sample answers include the following: "We want to know the total fans at both games and how many more attended Saturday’s game than Friday’s." Another question asks, "Does the order of the numbers matter when adding? Why or why not?" A model response may include the following: "No, because 295 + 408 and 408 + 295 give the same result."

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	All criteria for guidance met.	1/1
—	**TOTAL**	4/4

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

The materials integrate the TEKS mathematical process standards within each scope. In Scopes 3.7D and 3.7E, students develop their understanding of weight and capacity while applying Standards 3.1A and 3.1B. Standard 3.1A is addressed in "Explore 3" through real-world scenarios on Station Cards, such as the following: "A local shoe store just received a shipment of shoes. If the shoes are too heavy, the rack will break. How heavy are the shoes?" Students rotate through stations, identify whether the task involves weight or capacity, and record their reasoning in their Student Journals. Standard 3.1B is embedded in teacher-guided questioning to support problem-solving and justification. For example, teachers ask students whether a scenario requires measurement of weight or capacity, what tools could be used, and what units are appropriate. Students use their understanding to select tools, apply appropriate units, justify their reasoning, and evaluate the reasonableness of their solutions.

The materials integrate the TEKS process standards appropriately. In the unit "Represent and Interpret Fractions," students apply math to real-world scenarios (3.1A), use models to analyze and solve problems (3.1B), and select tools like fraction tiles and counters (3.1C). They communicate reasoning using diagrams and language (3.1D), create and record models (3.1E), analyze relationships between parts of a whole and a set (3.1F), and justify ideas using precise math language and multiple representations (3.1G).

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

The materials include a clear description of how process standards are integrated and connected across the learning pathways. Each unit's "Home" section features "Content Supports" and an "Applying Mathematical Process Standards" section, which provides concrete examples of how students engage in problem-solving, reasoning, communication, and representation. For example, Standard 3.1F—which states "analyze mathematical relationships to connect and communicate mathematical ideas"—is addressed in the "Represent and Interpret Data" unit. In the "Engage-Hook" lesson "Favorite Popcorn Flavors," students summarize data with multiple categories using a pictograph, bar graph, and dot plot and solve related one- and two-step problems. The "Procedure and Facilitation Points" guide teachers to help students determine the problem, identify prior knowledge, and consider what additional information is needed. Teachers model how to collect and organize data using tally marks and frequency tables. Students then create their own graphs and compare them, identifying similarities among the

different representations. To extend learning, students design their own survey, collect responses, and develop a plan for organizing and graphing the results.

The materials outline the TEKS addressed in each scope. For example, in Scopes 3.9A–3.9F, students learn about financial decisions, such as income, spending, saving, and credit. Aligned process standards include applying math to real-life problems, where students run a lemonade stand, calculate income, handle expenses, and plan savings. In "Explore 1," students discuss their lemonade stand experiences, reflecting on income, needed skills, goods and services, saving reasons, and unplanned expenses. In "Explore 2," students face borrowing money using credit, discussing its pros and cons, repayment responsibility, and saving to repay credit.

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

In grade 3 Scope "Addition and Subtraction Problem Solving," the "Content Support" section provides all of the mathematical process standards to be included in this scope, with an example of what that would look like. For example, 3.1A Apply mathematics to problems arising in everyday life, society, and the workplace: Students apply addition and subtraction models to everyday life in multiple ways, such as ordering T-shirts for a fun run, hosting a family playday, and completing challenging missions.

The materials include an overview of the TEKS process standards embedded in each lesson. For example, in the unit "Multiplication Models," "Explore 3: Number Lines and Skip Counting" lists the following standards: (A) applying math to real-world problems, (C) selecting appropriate tools and techniques, (D) communicating using multiple representations, (E) creating and using representations to communicate ideas, (F) analyzing relationships to connect ideas, and (G) justifying reasoning with precise mathematical language.

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.

The materials provide students with multiple opportunities to apply mathematical thinking and make sense of mathematics through productive struggle. In Scope 3.2AB, "Place Value Relationships," students represent addition and subtraction problems using place-value charts and base ten blocks. The materials support perseverance with teacher-facilitated tasks. For example, students analyze video game scorecards, use base ten blocks to model each score, and record their thinking in their Student Journals. Teachers are encouraged to prompt students to determine the value of each score and analyze the relationships between them. When working with large numbers, such as a digit in the ten-thousands place, students choose how to represent the value—either by drawing place-value disks or creating a visual model, like a large rod composed of ten thousand blocks. This flexibility encourages creative problem-solving and deepens conceptual understanding. Students also engage in Math Chats that promote mathematical reasoning and communication. The following may be an example of a prompt: "What did you notice about Player 9 and Player 10? Describe your process for comparing the scores. Player 9 had 14 tens. I regrouped 10 tens into 1 hundred, making the score equal to Player 10’s, which was 1 hundred and 4 tens." These discussions support students in justifying their thinking, exploring multiple representations, and understanding place-value relationships through meaningful dialogue and hands-on modeling.

The materials provide opportunities for students to think mathematically, persevere through solving problems, and make sense of mathematics. In the "Division Models" unit, the "Explore 2" lesson titled "Diagrams and Repeated Subtraction" engages students in collaborative problem-solving using task cards. Students are prompted to determine what information is needed; represent each problem using a diagram, repeated subtraction, and a division equation; and write a solution statement. After completing the tasks, students share and discuss the strategies they used and explore alternative ways to represent the problems. This activity fosters mathematical thinking by requiring students to justify their solutions, explain their reasoning, and make connections across multiple representations. It supports deep conceptual understanding through reasoning, collaboration, and reflective discussion.

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

The materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks. For example, during the "Hook—Cargo Ship" activity in Scope 3.4AB, 3.5A, "Addition and Subtraction Problem Solving," the "Procedure and Facilitation Points" in "Part II: Post-Explore Step 2" provide guiding questions that promote flexible thinking. Educators ask, "DOK-1: What do we know?" to help students identify known information. They also ask, "DOK-1: What are we trying to find out?" to clarify the problem's goal. The question "DOK-1: What does your picture look like? Where did you put the unknown in your picture?" encourages students to visualize their thinking and recognize that different representations are possible. These questions support students in understanding that there are multiple ways to interpret and solve problems, fostering explanation, justification, and exploration of various problem-solving strategies.

The materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks. For example, during the "Explore 2: Count Objects and Organize Counts" lesson in the "Represent Numbers to at Least 20" unit, the "Procedure and Facilitation Points" section guides students to work in groups using Counting Mats to organize and count a collection of objects. Students are given the freedom to choose how they want to count the collection, allowing them to explore different methods. They then draw a picture to represent the total number of items and write the corresponding numeral. To conclude this portion of the lesson, teachers prompt students to share the strategies they used, make connections among various approaches, and identify similarities and differences between the processes. This structure encourages students to think mathematically, discover their own methods for solving tasks, and justify their reasoning, reinforcing the idea that multiple solution paths are valid.

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 materials provide multiple opportunities for students to demonstrate their understanding of mathematics through hands-on activities, discussion, and writing. In Scope 3.3ABE, "Represent and Interpret Fractions," students work in small groups to partition modeling dough to represent equal shares, supported by educator monitoring and guiding questions. Students draw their models and write explanations in their Student Journals to solidify understanding. The lesson concludes with a Math Chat where students can compare the current problems to previous fraction work and explore strategies for finding amounts without physical models. Finally, students demonstrate their learning by completing an Exit Ticket, where they model and write a solution to a real-world fraction problem. This approach integrates tactile learning, verbal reasoning, and written expression to deepen comprehension of fractions.

The materials provide opportunities for collaborative learning and conceptual understanding of multiplication. In Scope "Multiplication Models," "Explore 2: Arrays and Area Models," students work in groups to arrange item cards to build a specific display representing multiplication. After completing the task, they record their work in their Student Journals by drawing the display, finding the total number of items, and writing multiplication sentences and equations to describe the situation. This activity helps students connect visual models to multiplication concepts and supports reasoning through group collaboration and written reflection.

6.2 Facilitating Productive Struggle

GUIDANCE	SCORE SUMMARY	RAW SCORE
6.2a	All criteria for guidance met.	6/6
6.2b	All criteria for guidance met.	4/4
—	**TOTAL**	10/10

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

The materials include educator guidance to support students in explaining their thinking, as well as generating and justifying mathematical arguments. For example, in Scopes 3.4K and 3.5BD, "Multiplication and Division Problem Solving," students work on solving addition and subtraction problems. During the Math Chat, students explain their thinking by answering questions such as "What did you notice about the diagrams you built?" and "How could it be helpful to use multiple equations to represent a diagram?" Students justify their reasoning within the lesson through teacher-guided discussion, responding to prompts such as "How can you justify the solution to your problem?" Answers may vary, with students saying, "I can replace the question marks in the equations with the answer to make sure it is correct" or "I could use a different solving strategy to see if I get the same answer."

The materials provide educator support to facilitate student reflection. For example, in Scopes 3.2C and 3.4AB, "Addition and Subtraction Strategies," students review various strategies for solving addition and subtraction problems. Educators guide reflection through structured writing prompts in Student Journals. The following are examples of prompts: "Compare your strategies to the ones used by others. How are they similar? How are they different?" "Why is it possible to use more than one strategy to solve problems like this?" During the lesson and the Math Chat, educators further facilitate reflection and guide students to justify their reasoning by asking questions such as "Which estimation strategies help you get the closest to the actual answer?"

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

The materials support educators in providing explanatory feedback through targeted guidance and prompts that address student responses and anticipated misconceptions. Each scope includes a "Misconceptions and Obstacles" section in the "Content Support" document. For example, in Scope 3.2D, "Compare and Order Numbers," common misconceptions include confusing < and > symbols, misreading place value, or misunderstanding digit value. Teachers are advised to reinforce symbol meaning through repeated exposure, use of number lines, and verbal cues, such as "greater than" while writing.

In "Explore 2: Start and End Times on a Number Line" of the "Time" unit, instructional support addresses difficulty applying number-line concepts to time. Teachers are guided to create a floor number line and

use movement-based scenarios to help students visualize moving forward or backward in time. This physical modeling supports conceptual understanding and reinforces flexible problem-solving strategies.

In Scopes 3.7D and 3.7E, "Weight and Capacity," guiding questions help clarify the difference between weight and capacity. Prompts, such as the following, are used to steer students toward accurate understanding and unit selection: "Are we measuring how much something holds or how heavy it is?" "What units measure large or small amounts?"