

Accelerate Learning Inc.

Supplemental Spanish Mathematics, 3

STEMscopes Texas Math Pulse–Grade 3 Spanish

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	2	Flags Addressed	Not Applicable	0

Quality Rubric Section

RUBRIC SECTION	RAW SCORE	PERCENTAGE
1. Intentional Instructional Design	20 out of 20	100%
2. Progress Monitoring	20 out of 24	83%
3. Supports for All Learners	33 out of 35	94%
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)	1	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.	4/4
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	13/13

1.1a – Materials include an alignment guide outlining the TEKS, ELPS, and concepts covered, with a rationale for learning paths across grade levels (vertical alignment) and within the same grade level (horizontal alignment) as designed in the materials.

The materials provide a "Rationale for Scope Order" across grade levels and within the grade level, showing vertical alignment for math concepts across grade levels. The materials provide the "Teacher Toolbox" that outlines how concepts build complexity across grade levels. This section also includes a clear TEKS-aligned scope and sequence of grade 3 that provides evidence of key concepts covered. The materials provide a rationale for learning, which includes three focus areas for instructional time for teachers. The "Scopes" tab provides the progression of learning and reinforces skills that demonstrate a horizontal alignment across the grade level. In grade kindergarten, the "Unit/Module Overview" ("Content Support") provides current content with alignment to future grade levels, including current standards aligned to the instructional units, with background knowledge from previous grade levels, and the application process for mathematical standards.

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 a "Differentiation Pathways" document with just-in-time support for personalizing instruction based on students' proficiency levels and recommended intervention strategies to support all types of learners in the "Interventions" tab found in the "Teacher Toolbox," e.g., "Adaptive Development." Additionally, the material includes 90-minute classroom instruction plans, which also include Whole Group, Small Group, Station Options, Assessment, and Closure.

The materials include an *Implementation Guide* for the educator's use. This guide serves as a resource for educators to support their understanding of the curriculum and how to navigate the various tools included. The "Curriculum Design" states that lessons are designed using a research-based 5E + IA model, which includes resources to support intervention and acceleration. These sections include learning supports for students' diverse needs and plans for interventions and extensions.

The "Differentiation Pathways" assists educators in determining which activity to use to assist students in reaching their unique goals. These activities meet students where they are: approaching, meeting, or master's level in their content knowledge and skills. The materials include recommended intervention strategies to support all types of learners in the "Interventions" tab found in the "Teacher Toolbox," e.g., "Adaptive Development."

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

The materials include the "Scaffolded Instruction Guide," which allows the teacher to see four levels of performance sorted by percentile range. Teachers use this guide to search for suggested materials based on students' Instructional Area scores and needs. Additionally, key concepts and fundamental questions are provided for further diagnostic assessment by teachers. The suggested materials are organized by standards.

The "Suggested Scope Calendar" provides an interactive platform, allowing educators to view diagnostic assessments for each standard and suggested activities based on the objective and standard.

The materials provide a grade-level TEKS-aligned guide embedded in each grade-level content scope, providing educators a better understanding of the area of focus, connecting standards, key concepts, and fundamental questions.

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

The materials include a "Suggested Scope Calendar" where daily learning objectives are described, and learning is divided into whole-group and small-group sessions, allowing for differentiation. Assessment options provide a variety of activities to assess understanding. "Content Support" links remind teachers of TEKS expectations.

The materials include a "Content Support" section where teachers can preview the unit to understand key standards, unit objectives, and vocabulary. This section in the materials aids in unit internalization and lesson internalization.

The materials include a "Suggested Scope Calendar" that provides an overview of each content area. These materials provide a detailed description of steps needed to internalize lessons, such as reviewing

standards addressed in a scope, recognizing which standards will be assessed, reviewing the "Progression of Learning" in the Scope Overview, and determining which resources will be used for practice and assessments.

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

The materials include a "Suggested Scope Calendar," planning resources, pacing, practice, and assessment options. It also includes lesson models for instructional leaders to support educators with implementing materials. These resources allow instructional coaches to effectively implement instruction when needed.

The materials provide instructional coaches an outline of all the tools included in the "Teacher Toolbox" to assist with instruction, pacing recommendations, and program structure through the resources listed, such as "Curriculum Design and Lesson Planning Resources," "Structured Conversations," "Reference Documents," "Student Goal Setting," and "Process Standards and Interventions."

The materials include a comprehensive list of instructional materials by grade level, as well as a grade-level-specific inventory of instructional resources required to support student learning.

1.2 Lesson-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.2a	All criteria for guidance met.	5/5
1.2b	This guidance is not applicable to the program.	N/A
1.2c	All criteria for guidance met.	2/2
—	TOTAL	7/7

1.2a – If designed to be static, materials include detailed lesson plans with learning objectives, teacher and student materials, lesson components with suggested timeframes, and assessment resources aligned with the TEKS and ELPS.

The materials include a "Scope Calendar" outlining resources, pacing, practice, and assessment options. The calendar also includes lesson models for instructional leaders to support educators in implementing materials. These resources allow instructional coaches to effectively implement instruction when needed.

The materials provide instructional coaches an outline of all the tools included in the "Teacher Toolbox" to assist with instruction, pacing recommendations, and program structure through the resources listed, such as "Curriculum Design and Lesson Planning Resources," "Structured Conversations," "Reference Documents," "Student Goal Setting," and "Process Standards and Interventions."

The materials include a comprehensive list of instructional materials by grade level, as well as grade-level-specific inventory of instructional resources required to support student learning.

1.2b – If designed to be adaptive, materials include detailed lesson overviews with learning objectives, lesson components with suggested timeframes, and assessment resources aligned with the TEKS and ELPS.

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

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

The materials include strategies and activities, in English and Spanish, to send home that feature important vocabulary, explain what is being taught at school, and share what can be taught at home to reinforce the content.

The materials include information for families, in English and Spanish, on what is required to master the skill being studied, including "while working with your student at home," followed by vocabulary use and activities. The "Take-Home Letter" fosters connections between home and school. For example, the letter includes a unit overview and activities connected to what the student is learning in that scope.

The materials include Spanish sentence stems to promote discussion. These may be utilized in the classroom and may also be introduced at home. Caregivers may use the sentence stems to assist students in their thinking and to discuss math concepts at home.

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 lack printable versions and accommodations, except for a calculator the teacher can enable or disable when assigning assessments to 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 include a baseline diagnostic assessment with instructions and the intended purpose for the given grade level and skill to gain a solid understanding of the student's background knowledge. These assessments allow the teacher to gather the data necessary to plan lessons, deliver instruction, and monitor student progress.

The "Suggested Scope Calendar" includes the links for each type of assessment for the scope. The "Suggested Scope Calendar" includes examples of quick checks, warm-ups, think-pair-share, and exit tickets. In grade 1, the materials define diagnostic assessments to provide baseline data regarding a student's foundational knowledge or proficiency. The materials include examples of how to utilize diagnostic assessment.

The materials include an "Observation Checklist," defined as an assessment that evaluates key concepts and skills within the scope. In contrast, the "Skills Quiz" is defined as a short, standards-based formative assessment designed to determine fluency with key concepts and skills within the scope. The intended purpose of the "Observation Checklist" is to be used as a formative assessment for teachers and as a self-assessment for students; the "Skills Quiz" is a standards-based formative assessment to determine math fluency with key concepts and skills in the scope.

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

Assessment allows teachers to choose to assess either a whole group or a small group (due to the age of students). Each student receives the same paper assessment, and any student may receive manipulatives

by request. The "Skills Quiz" guiding document provides guidance for teachers to administer assessments that include the ability for students to request manipulatives and supplemental aids for students who meet eligibility criteria.

In grade 3, the materials include clear guidance for teachers to administer the assessments efficiently. For example, the "Skills Quiz" includes tips and tricks that help the teacher administer the assessment accurately. The materials include a teacher handout that ensures consistency in the administration of the included assessments.

The materials provide guided small-group interventions with student checkups at the end to assess student knowledge of content. Small-group instruction allows teachers to informally assess students while providing consistent instruction to all students in the group. Following the small group, students are assessed formally to determine their understanding. The materials provide an "Observation Checklist," which includes resources for both the teacher and student to allow for formative assessments for teachers and self-assessments for students. The handouts provide clear guidelines for assessments and allow for consistency and alignment to allow for a more accurate outcome. The materials include a suggested "Scope Calendar" for each grade level. This provides teachers with a plan for consistent instruction and assessments for each content area. The information in the calendar suggests assessment types for each day with the given time allotted for each assessment and provides more detailed information about the assessments and their intended purpose.

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.

All criteria for guidance were not met. Digital assessments include accommodations such as text-to-speech, content and language supports, and calculators, but do not allow educators to enable and disable these supports for individual students. The only feature the teacher can enable or disable when assigning assessments is the calculator. A paper copy of the "Skills Quiz" assessment may be obtained for each TEKS/scope. The teacher can use "Content Support" that includes "Background Knowledge," "Misconceptions and Obstacles," examples and pictures of activities the teacher may use to help with mastery of the TEKS/scopes, and definitions associated with the TEKS/scopes.

The materials include a "Skills Quiz" that can provide a printable assessment to meet students' individual needs. The printed materials are also available in Spanish, which serve as content and language support.

The materials provide digital resources for students to utilize when working and include virtual tools when allowed on assessments and assignments.

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

The materials include "Diagnostic Assessments" that help access prior knowledge before engaging in the content to allow students to demonstrate their learning. Additionally, "Benchmark Assessments" assess beginning-, middle-, and end-of-year learning, and "Growth Measurement Assessments" offer pre- and post-assessment to track growth on grade-level standards.

The materials include the "Editable Google File Skills Quiz," which allows the student to complete various activities such as coloring cars in a given number of colors; the student is required to count and type numbers in questions; and to compose and decompose numbers based on the number of different colors used to categorize objects.

The materials include a diagnostic assessment for each grade level before beginning the grade level scopes/content. The assessments gradually increase in complexity and are aligned to the TEKS for each grade level.

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

The materials include formative assessments for each grade level with varying levels of complexity. Also, they include diagnostic assessments with multiple-choice questions aligned with the TEKS.

The "Suggested Scope Calendar" provided in the materials includes varying assessments that are TEKS-aligned. These assessments provide a baseline for instruction for teachers to use to guide instruction and to determine background knowledge of content areas. It allows students the opportunity to demonstrate their understanding of the content and serves as a guide for teachers to better inform instruction.

The materials include TEKS-aligned tasks that are interactive, such as typing the answer, selecting the answer, and filling in the blank for the answer. The materials include two types of interactive questions.

2.2 Data Analysis and Progress Monitoring

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.2a	Materials do not include a rationale for correct and incorrect student responses, nor do they provide detailed reports to help teachers.	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 raw scores but do not offer detailed reports, such as item analysis, performance trends, or achievement comparisons, to help teachers make informed instructional decisions. Also, the materials do not include a rationale for correct and incorrect student responses.

The materials include assessments that provide a view of student progress over time. The benchmark assessments are given three times and serve as a way to gain information on student progress from the pre-assessment, mid-assessment, and post-assessment using the Heat Map, which allows teachers to gather data on student understanding of the content. The "Observation Checklist" serves as a formative assessment for teachers and a self-assessment for students. The materials include the checklist, which allows teachers to score the information, but also serves to guide the instruction and interpret student performance.

The materials include the "Observation Checklist" that provides a breakdown of key concepts and skills when used as a formative assessment for teachers to assess student performance on respective TEKS. Teachers are able to indicate the skill observed, take notes about the observation, and provide feedback to the student. The students can use a virtual interactive activity such as switching on rows and columns of light bulbs to represent multiplication problems. If the students activate the correct array for the multiplication problem, a message will state, "That was illuminating!" If the student's answer is wrong, the message "You nearly saw the light!" will appear.

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

The materials include an "Intervention" to support students having difficulty understanding the concepts/TEKS taught by reviewing and reteaching the skill/TEKS with multiple tasks and activities. This

element provides teachers with materials based on a student's needs, and suggested materials are organized by standard and student performance percentile range.

The materials include the "Scaffolded Instruction Guide" that provides guidance on how to use suggested materials to address specific skills based on results from assessments. For example, the suggested plan includes direct links to materials and activities to use for each standard. The suggested plan in the "Scaffolded Instruction Guide" includes responsive instructional tasks and activities that help address specific learning gaps and provide targeted instruction.

The materials include a "Suggested Scope Calendar," which provides assessments based on content areas that allow teachers to help address specific learning gaps by providing targeted instruction. For example, for each standard assessed, the plan includes direct links to activities such as small-group intervention activities and interactive games.

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

The materials include an "Observation Checklist," a tool for teachers to track student progress and growth of TEKS by providing a checklist for taking anecdotal notes on how the student has performed on concepts and skills taught and observed. Additionally, the "Observation Checklist" provides a self-assessment tool for students to track their progress and growth of TEKS by providing a checklist for taking anecdotal notes on their performance on concepts and skills learned and practiced.

The materials include a student-friendly data tracker where students can set goals and record if and when they master each goal. The materials include an "Observation Checklist" for teachers to track student progress.

The materials include a student progress teacher tracker for addition and subtraction fact fluency. This tracker can be customized to address content areas for all grade levels. This equips teachers with tools to monitor student progress and growth. Additionally, the materials include a goal-setting and progress tracker for students to track their progress. The student-friendly trackers allow students to visualize their growth and record their scores from different content area activities.

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 include Explore activities like Math Chats, which include prompts for teachers to conduct frequent checks on students' understanding of the skills being taught. Chats are embedded in the content area lesson as a way to help guide and facilitate the questioning for teachers to use with their students. Such chats include asking students structured conversation questions. For example, students may be asked, "How can you represent this problem with an array?"

The materials include facilitation points to guide questions and prompts to check for understanding during the lesson and activities. Questions are provided for students to show their knowledge of skills with questions, such as "How are multiplication and division related?" and "What strategies can help me solve multiplication and division problems?"

The materials include several opportunities for teachers to check for understanding during a lesson. These checks provide questions, such as identifying examples of halves, fourths, and eighths. The questions serve as a check for understanding and help guide the instruction.

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

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

3. Supports for All Learners

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

3.1 Differentiation and Scaffolds

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.1a	All criteria for guidance met.	1/1
3.1b	All criteria for guidance met.	4/4
3.1c	All criteria for guidance met.	2/2
3.1d	Materials do not include educator-controlled options to enable or disable text-to-speech or content and language support for individual students. These features are available to all students by default and cannot be personalized based on student need.	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 include a "Scaffolded Instruction Guide," which includes explicit educator guidance on different scaffolded lessons or activities for students who have not yet reached proficiency in a given content area. The guide is broken down into four percentile ranges for each standard and includes instructional support for every level. The "Scaffolded Instruction Guide" allows teachers to teach students who scored in the percentile range of 50–80 percent in multiplication and division skills. For example, teachers reteach to build fluency, using picture vocabulary, interactive practice, multiplication within 100 (models and equations), and problem-solving with multiplicative comparisons.

The materials include an "Observation Checklist" that is provided for teachers to observe and assess student performance, take anecdotal notes, and use reflection questions. The checklist also provides notes to colleagues offering instructional support and for documentation in standards-based reporting.

The materials include small-group intervention activities for students who are performing below 50 percent on scope assessments. The description states that the small-group intervention is a "reteach activity that supports students' understanding of the concept by reteaching the current skill."

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 "Language Supports" section in each Explore lesson for every grade level and content area. These language supports include: sentence stems, modeling think-aloud strategies, supporting students' modeling concepts and vocabulary with their hands, having real-world objects labeled and ready to use for acting out, and supporting students with expanding and internalizing vocabulary. The materials include language supports in each of the Explore activities. For example, the Explore 1 activity includes a section for language supports that includes educator tips to support students' understanding of a specific term. The section guides the teacher to "allow time for students to explore the base ten blocks. Provide examples of the following terms to support students in participating in class discussions: ones, tens, hundreds, thousands, and regroup."

The materials include a "Content Support" page, which provides an overview of the grade-level content. This page includes "Terms to Know," which are vocabulary words with definitions to be taught throughout the scopes to ensure students understand the concepts and can access the material with minimal misconceptions or misunderstandings. The interventions ("Cognitive Development") provide teachers guidance on how to give language support, such as using Associated Words, Word of the Day, Word Wall, Flash Cards, List of Words, and Word Banks.

The materials include a picture vocabulary section with multiple pre-teaching opportunities. The materials provide teachers and students with Picture Vocabulary Slides for use as a teaching tool to be used when working with activities, such as Explore activities. For example, the vocabulary section includes pictures and flashcards to use with the Explore activities in each scope.

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," which includes educator guidance for scaffolded lessons based on the students' performance on scope assessments. For example, if a student performs at or above grade level on assessments, then the teacher is given explicit guidance on enrichment activities and extension activities. For example, students apply math and other cross-curricular content through authentic, real-world media. Students view a video and explain how invading insects affect agriculture. After viewing, students use statements such as "I noticed . . ." or "I wonder . . ." to discuss their observations and cite video evidence to justify their ideas. Students also complete a handout, independently or with a partner, to answer questions related to the real-world activity viewed in the video lesson.

The materials include the "Coming Attractions" for students who are ready to extend their mastered grade-level skills. In "Coming Attractions," teachers extend instruction of multiplication as it will be taught in grade 4 with activities such as solving problems involving multiplication of a number with up to four digits by a one-digit whole number or multiplying two two-digit numbers. Students apply math and other cross-curricular content through authentic, real-world media.

The materials include extension activities that enable students to deepen their understanding of a given concept and to broaden their understanding beyond what they have been taught. These activities also allow educators to gather data to support student learning needs. A Fluency Builder activity supports students as they continue to build on the knowledge they have already gained in a given concept area.

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 digital materials include text-to-speech, content and language supports, and a calculator that educators can enable and disable for each student. However, the calculator is the only accommodation the teacher can individually assign in the Assign Activities settings. For example, with the "Skills Quiz," teachers can assign assignments with calculator use by clicking and turning on/off the "4-Function Calculator."

The materials provide a feature where teachers may assign Explain activities with the option for students to use calculators by turning this setting on or off.. For example, the Show What You Know activity in each grade level scope has a function that teachers can turn on to allow for a 4-function calculator in the "Assign to Students" page.

The materials, by default, give students access features such as text enlargement, the text-to-speech tool, text highlighting, commenting tools, and dictionary mode for assistance.

3.1e – Materials include educator guidance on offering options and supports for students to demonstrate understanding of mathematical concepts in various ways, such as perform, express, and represent.

The materials include the "Procedure and Facilitation Points" to support students in demonstrating their understanding of solving fraction problems. In addition, students show understanding of fractions by designing models for problems, e.g., by creating a model of four sisters sharing six sandwiches equally.

The materials include opportunities for students to demonstrate understanding with virtual manipulatives. The Explore activities include an instructional support section with suggested supports to help students demonstrate understanding in various ways. For example, students can be assessed on understanding subtraction of two-digit numbers by designing digital models and using place value properties to solve.

The materials include an "Observation Checklist," which offers students a variety of ways to express their thinking and track mathematical concepts to show their understanding of the content. For example, the "Skills Quiz" allows students to demonstrate understanding by performing tasks like visual identification.

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 include "Procedure and Facilitation Points," which guide educators in building background knowledge for students by anchoring big ideas.

For example, in the "Addition and Subtraction Strategies," the facilitation points guide teachers to ask students questions that activate their prior knowledge on rounding.

The materials include the "Math Chats," which are teacher-guided discussions designed to engage students. Key patterns, features, and relationships are highlighted and connected through multiple means of representation. For example, students are taught to use patterns to reinforce their understanding of multiplication. The teacher makes these connections through question prompts such as "How many tens are in each row? What is the value of the tens? How many rows are there? So, how many groups of tens do we have? How could we write this as an equation to show the value of the tens ($3 \times 20 = 60$)?"

The materials include direct prompts for educators to build knowledge by activating prior knowledge. Teachers use explicit question prompts so students can make connections to key division patterns by being prompted with teacher questions. For example, "What do you already know about sharing equally? What did your plates represent (each student)? What is another word we could use to describe how you divided up the mini-cupcakes (sharing)? Does this model make you think of another math operation?"

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

The materials include a "Suggested Scope Calendar," which guides educators to effectively teach and facilitate concepts using a variety of instructional approaches. These approaches include, but are not

limited to, small-group activities, independent practice, whole-group discussions through math chats, and hands-on exploration using manipulatives.

The materials include a "Pacing Guide" that provides teachers with differentiation based on the math instructional block. Suggested timing options include 45-, 60-, 90-, and 120-minute blocks. Included in these blocks are suggested activities for Warm-Ups, Math Instruction, and Closure. These activities include numeracy, fluency, interactive notebooks, Hook and Explore activities, Small-Group Intervention/Skill Review and Practice, Exit Tickets, Show What You Know, Skills Quiz, and Anchor Chart as options available for the teacher to use.

The materials include the "Whole-Group Planning Guide"—a breakdown of whole-group activities, assessment and closure activities, small-group suggested instruction, and station activities. Some of these activities include a suggested amount of time of instruction. These activities are further detailed by each day of instruction (for example, Day 1, Day 2, etc.). Additionally, if the teacher finds time is limited, the essential elements that cover the TEKS are highlighted.

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

The materials include a "Scaffolded Instruction Guide," which allows teachers to meet the individual needs of students based on their performance on various scope assessments. This guidance allows teachers to effectively support students in the implementation of multi-tiered intervention methods. The materials provide guided small-group interventions, which include step-by-step guidance on effectively implementing the lesson based on group needs. Teachers are also given a checklist to support students' individual needs and provide targeted instruction.

The materials include multi-tiered intervention methods through small-group intervention to help students learn about multiplication through multiplication models. The teacher begins the intervention by activating students' background knowledge, asking questions about what they remember about different models that can be used to help solve multiplication problems and what they know about working with groups. Students then work with peers to create models of multiplication problems (for example, using four plates to represent the number of groups and three counters on each plate to represent how many are in each group). Students then make the connection to multiplication ($3 + 3 + 3 + 3 = 3 \times 4$).

The materials include multi-tiered intervention methods with intervention descriptions, materials needed, and "Procedures and Facilitation Points" divided into parts (for example, "Model Equivalence with Objects," "Model Equivalence with Number Lines," and "Measure with Fractional Parts"). Each lesson part is accompanied by guiding questions and procedures for the teacher to use.

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

The materials include a "Scaffolded Instruction Guide," which includes educator guidance for scaffolded lessons based on the students' scope assessment performances. If a student performs at or above grade level on assessments, then the teacher is given explicit guidance on enrichment activities and extension activities.

The materials include an extension activity that allows students to extend their knowledge of the concept while also reviewing previous knowledge on the content. For example, teachers are guided in implementing enrichment and extension activities. Such assistance entails acceleration activities that include a description of the activity, procedures, facilitation points, discussion questions, media, media/subject-related questions, and virtual student activities.

The materials include enrichment and extension opportunities for students to complete and allow them to access the next grade level content through real-world extension activities, which allow students to extend their knowledge of the concept while also reviewing previous knowledge on the content. This differentiated activity meets the needs of diverse learners and allows for further comprehension and access to the scope.

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

The materials include an "Observation Checklist," which is used as both a formative assessment for teachers and a self-assessment for students. The Explore and Explain activities in each grade level scope provide ways to monitor student progress and take notes on which skills were observed during the lesson. The teacher can also provide timely feedback to ensure the student has a clear understanding of the concept.

The materials include guidance for teachers to monitor and talk with students as needed to check for understanding by using guiding questions. For example, the "Math Chat" guides teachers with different depths of knowledge (DOK) question prompts to provide timely feedback toward the end of the lesson. Questions include "What is the relationship between number lines and rulers?" and "What connections did you make between representing fractions as distances from zero and other math concepts you have learned?"

The materials include prompts and guidance to support teachers in providing timely feedback during lesson delivery. For example, when measuring with fractional parts, the teacher is provided with a guiding question to begin the lesson. Students are then asked to measure items in inches and then provide a more accurate measure using fractions. As students work on the problems, the teacher has question prompts that can be used such as "How is a ruler similar to the number line? How are the

inches partitioned on each ruler (partitioned into different numbers of sections between each whole number)? What do you notice about some of the tick marks when comparing these three rulers?"

3.3 Support for Emergent Bilingual Students

An emergent bilingual student is a student who is in the process of acquiring English and has another language as the primary language. The term emergent bilingual student replaced the term English learner in the Texas Education Code 29, Subchapter B after the September 1, 2021 update. Some instructional materials still use English language learner or English learner and these terms have been retained in direct quotations and titles.

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.3a	This guidance is not applicable to the program.	N/A
3.3b	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	9/9

3.3a – If designed to be static, materials include educator guidance on providing and incorporating linguistic accommodations for all levels of language proficiency [as defined by the English Language Proficiency Standards (ELPS)], which are designed to engage students in using increasingly more academic language.

This guidance is not applicable because the adaptive Spanish program does not require guidance on providing and incorporating linguistic accommodations.

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 because the adaptive Spanish program does not require guidance on providing and incorporating linguistic accommodations.

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

The "Teacher Toolbox" tab includes a "Multilingual Learners" section. The information provided here (Linguistic Diversity) allows teachers to use resources embedded to support linguistically diverse learners using research-based tools and strategies for various proficiency levels. The "Language Supports" section in the teacher guidance allows teachers to use different strategies to adapt the materials to meet students' linguistic and academic needs while ensuring alignment with state standards. It includes sentence stems, vocabulary supports, and strategies for language-rich instruction.

The materials provide implementation guidance on how to effectively use materials in state-approved bilingual/ESL programs, found under "Language Supports." The bottom portion, "Soportes de idiomas," provides teachers with guidance for bilingual learners, for example, asking students to relate the word *estimate* to the Spanish word *estimar* and relate the term *number line* to the Spanish words *linea numerica*. Teachers are also advised to clarify the meaning of the verb *round*, as it may be confused by bilingual learners with the adjective *round* referring to a shape.

The materials include guidance to support emergent bilingual students in developing academic vocabulary through oral discourse. Teacher guidance includes reviewing prerequisite skills before beginning the new activities. For example, the guidance states to "review prerequisite skills, such as multiplication facts, skip counting, and the properties of multiplication and place value before beginning."

3.3d – Materials include embedded guidance to support emergent bilingual students in developing academic vocabulary, increasing comprehension, building background knowledge, and making cross-linguistic connections through oral and written discourse.

The materials include a resource for students to utilize and to take ownership of their language development and growing vocabulary, which allows them to make connections to prior knowledge. For example, the online interactive practices allow students to switch between languages. A student learning English and having difficulty understanding certain math terms is able to switch the language of the interactive practice to receive the translation, in Spanish, of the terms and instructions.

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 discourse. Teacher guidance includes reviewing prerequisite skills before beginning the new activities. For example, the guidance states to "review prerequisite skills" such as multiplication facts, skip counting, and the properties of multiplication and place value before beginning this Explore to set the stage for building a deeper understanding of the base-ten place value system. Additionally, in the Explore 1 Language Supports section in the Division Models scope, the guidance allows teachers to orally review academic vocabulary, build background knowledge, increase comprehension, and make cross-linguistic connections. For example, students relate the English word *divide* to the Spanish *dividir* and learn "the word *dividendo* for dividend and how the word *divisor* is the same in both English and Spanish."

Materials include embedded guidance to support emergent bilingual students in developing academic vocabulary, increasing comprehension, building background knowledge, and making cross-linguistic connections through written discourse. Teachers can have students access the "Elaborate" section and work on the Spiraled Review ("Confident Camper"). For example, students respond to a strip diagram problem by providing a written response to questions such as "How many sorted beads were green?" For another example, the educator asks students to write each part of their equation by using words such as *dividend*, *divisor*, and *quotient*. Cross-linguistic connections are reinforced between the Spanish and

English terms, e.g., noting that *dividendo* translates to *dividend* and that *divisor* functions the same way in both languages.

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.

The materials include multiple activities for students to demonstrate depth of understanding, including Warm-Up activities, Structured Conversations, Explore activities, Show What You Know exercises, and Skills Quizzes for students to demonstrate understanding of respective TEKS/Scope.

The materials include the "Suggested Scope Calendar" that offers teachers a variety of opportunities to practice the content. The scope calendar includes different pathways and activities for students that are aligned with the TEKS.

The materials include various instructional assessments throughout the grade level scopes, which enable students to show what they know while also allowing teachers to gather data to help guide and inform instruction to meet the needs of students.

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

The materials include the scope to prepare students for grade-level proficiency and above-grade-level proficiency in mathematics according to the course rationale for each grade level. In grade 3, the materials provide enrichment and extension activities that increase in rigor and complexity. For example, in the activity titled "Peacock Feathers," students deepen their mathematical understanding through real-world media and solving real-world problems.

The materials include a spiraled review activity that allows students to review previous material and reinforce key concepts to assist in understanding grade-level content. These activities also serve as information for teachers to gather data to help guide instruction. The materials provide enrichment extension activities to increase in rigor of content and to allow for learning opportunities for students

above grade level while providing information for teachers to collect student data to assist in guiding instruction.

The materials provide students with various opportunities to practice what they have learned through an on-level interactive extension activity. In grade 3, students begin by placing given numbers in labeled place-value rectangles to build number sense. Using Explore 1, students model groups of 10, showing relationships such as “ten tens equals 100” and “ten hundreds equals 1,000.” Students then extend their understanding by using the "Skills Quiz" to demonstrate place value in standard, expanded, and pictorial form for numbers up to 100,000.

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 include the Course Rationale that 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. For example, the concept of addition and subtraction strategies begins with teaching students to estimate and round numbers. This advances to using compatible numbers to add and subtract. These skills of estimating, rounding, and using compatible numbers are later used by students to connect the big idea of getting closer to the exact answer. These skills are used in Explore activities where students solve three-digit addition problems as well as solve three-digit subtraction problems."

The materials include a background knowledge overview in the "Content Support" tab that explains what students learned in their previous grade. For example, "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."

The materials provide coherence across grade levels, allowing students to see mathematics as an interconnected web of ideas. The materials include guidance for teachers to reinforce concepts. The materials contain a "Content Support" section for each grade-level content area scope. This provides the teacher with the background knowledge students should have before learning the new content, information about the current scope, and information about what is ahead. This allows the teacher to instruct students to continue to build on what they already know by creating a cohesive collection of skills that move along the grade level.

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 include a vertical alignment chart that demonstrates the progression of what students learn in one grade level to prepare them for the next. The well-structured mathematical progression

allows students to build on prior knowledge while introducing new, developmentally appropriate skills. For example, students use knowledge of number order and value while using open number lines to find the relative position of whole numbers (up to the thousand). In grade 2, students learned to order whole numbers up to 1,200 using open number lines, which prepared them for more advanced work in later grades.

Each scope includes a "Content Support" tab. The "Content Support" page includes a "Coming Attractions" section that allows teachers to preview upcoming concepts. It also connects patterns, big ideas, and relationships across grade levels. For example, students learn to find the perimeter of two-dimensional polygons by adding all side measurements of the polygon. This learned concept helps students in grade 5 find perimeter measurements of composite figures and make further connections to finding the perimeter, area, and volume of prisms.

Additionally, students extend counting and cardinality skills by generating sets of objects and creating patterns. Students explore the concept of multiplication through models of equal groups of concrete objects, arrays, and area models to enhance multiplication fluency. These skills build on concepts introduced in grade 2, where students began skip-counting by 2s, 5s, and 10s. Skip-counting coins, direct modeling, and counting strategies in real-world contexts further reinforce multiplication.

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 procedures to teach the mathematical concepts are provided in Pre-Explore and Post-Explore sections with questions of different DOK levels. For example, students begin counting beyond 1,000 and learn to draw, join, separate, or compare sets of 1000 to solve word problems. In grade 3, students work with whole numbers in methods that include rounding numbers to the nearest multiple of 10, 100, 1000, or 10000 and using these rounding strategies to help add and subtract. In grade 4, students extend their learning of whole numbers by being able to explain how a digit's location determines its value—for example, whether it is 10 times larger or one-tenth smaller—and by expressing the value of each digit using expanded notation. The materials include a background knowledge overview in the "Content Support" tab explaining what students learned in their previous grade. For example, in grade 3, procedures allow teachers to show that the order of numbers when adding does not matter (e.g., $295 + 408$ is the same as $408 + 295$) and how to teach students to regroup when adding or subtracting.

The materials include a "Fact Fluency" section before the first content scope to be taught in each grade level. The "Fact Fluency" section allows students to build on prior knowledge and increase their understanding of the concepts of addition and subtraction. Students will follow a progression that will build their fact fluency knowledge through fluency, automaticity, and memorization. For example, students stay within 1,000 to count by 10s. They can also count forward to 1,200 and backward from

1,200. Students learn to count objects placed in varying formations. The teaching of counting up to 1,200 will ease and enhance students' learning to count past 1,200 in grade 3. In addition, students in grade 3 learn to draw, join, separate, or compare sets of 1,200 or more to solve word problems.

4.3 Coherence and Variety of Practice

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

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

The materials include the "Observation Checklist" that provides a breakdown of key concepts and skills being taught in each scope. These checklists may be used to reflect forward and backward on what skills and concepts have been taught; retrieving information noted in the checklists allows for reteaching of skills and concepts not yet mastered.

The materials include an interactive practice where students can use virtual manipulatives, such as base-ten blocks, to model numbers. Students are able to use the virtual manipulatives, two-color counters, to create patterns and begin to see multiplication facts by skip-counting equal groups of counters. Later in the pathway, students are able to increase their understanding of multiplication by using the virtual activity that includes creating equations for questions such as "What is 5×25 ?" Students would have to create answers such as " $(5 \times 20) + (5 \times 5)$."

The materials offer a "Spiraled Review" for each grade-level content scope. This review allows students to access prior knowledge from previously learned material and connect to current concepts by demonstrating their understanding of the content. For example, students practice composing numbers up to 1,200 or higher. Students previously learned to count up and compose numbers up to 1,000 using objects and pictures. Students use the skills previously learned to practice grade-level skills with interactive games. The "Spiraled Review" also enables students to revisit previously taught or current grade-level content based on the critical areas of focus set for each grade.

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

The materials include a "Spiraled Review" where students review previous or current grade-level content based on the critical areas of focus set for each grade. For example, students begin to multiply and divide to solve one-step problems, such as having to multiply 5×3 to solve a math problem. As students become fluent with multiplication and division facts, students begin to work with multi-step multiplication and division problems, such as "At the craft fair, all hats cost \$15, and all scarves cost \$10."

The materials include an interactive practice where students practice counting up to 1,200 or higher using pictures. Students previously learned one-to-one correspondence from 1–1200 with real objects.

The materials gradually increase in complexity throughout the grade-level scopes. Additionally, the materials include an interactive practice where students compare and order numbers up to 1,200 or higher. They apply previously learned skills to practice grade-level skills with interactive games and use their knowledge of place value and number lines to work with four-digit numbers.

The materials include an Explore section of each concept, allowing students to demonstrate their understanding by building on previous knowledge acquired in the content area. This enhances students' problem-solving abilities and promotes flexibility in student thinking, which allows different strategies to be used as tools for learning. For example, students count objects by beginning from 1–120 and then use those skills to extend the counting to 1,200 or higher numbers.

5. Balance of Conceptual and Procedural Understanding

Materials are designed to balance conceptual understanding, procedural skills, and fluency.

5.1 Development of Conceptual Understanding

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.1a	All criteria for guidance met.	3/3
5.1b	All criteria for guidance met.	2/2
5.1c	All criteria for guidance met.	1/1
—	TOTAL	6/6

5.1a – Questions and tasks provide opportunities for students to interpret, analyze, and evaluate models and representations for mathematical concepts and situations.

The materials include an Explore section that allows students to use manipulatives to demonstrate understanding of the concepts and to show their work using concrete materials in a variety of mathematical situations. For example, students mentally estimate solutions to addition and subtraction problems using compatible numbers. The teacher asks, "What did you do to add the numbers mentally? What would you do if your actual total was very different from your estimated total? How did the different ways of estimating (estimate versus compatible numbers) affect your final estimate? Which estimation strategies help you get the closest to the actual answer?"

In another example, students use models to solve multiplication problems. Students use models to determine how many cookies each friend will take home to share with their families. The teacher asks, "What would we need to know to find out how many cookies each friend would get? How many cookies are there to share equally among your friends? How many cookies would each friend get if you were sharing them among six friends? Among eight friends? Can you think of another real-world situation where you will share things equally?" Teachers prompt students to "explain how you determined the total number of items in each model without counting each one."

The materials include a Hook section that allows students to analyze a phenomenon and answer a variety of teacher-facilitated questions to demonstrate their understanding and to interpret the concepts. The materials include a "Skills Quiz" that gives students the opportunity to demonstrate their understanding of the concepts and to analyze, interpret, and evaluate the content.

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

The materials include an Explore section that allows students to use manipulatives to demonstrate understanding of the concepts and to show their work using concrete materials in a variety of mathematical situations. For example, educators provide students with 50 color tiles and ask them to design game boards for USA Games, Inc., using the colored tiles. Students select cards that provide

specific instructions on how the game board should be built, such as "This game board should be 6 units long and 7 units wide" or "This game board should be 5 units long and 4 units wide." Students create pictorial representations to answer questions such as "Clay has 36 pieces of gum that he wanted to share with his nine friends. How many pieces will each of his friends get?" and "Camille works at a dog shelter that has 18 dogs that need to be walked; there are 8 other workers who are going to help Camille. How many dogs does each worker need to walk if they are going to share the job equally?"

The materials include an "Observation Checklist" that provides students with opportunities to use pictorial representations of mathematical situations to demonstrate their understanding of the materials and concepts. For example, students draw pictorial models to partitions such as "Luke wanted to share a pizza with 3 friends. Partition the pizza into 4 equal pieces" or "Carol wanted to cut the brownies she made into 8 equal pieces. Partition the brownies into 8 equal pieces." In addition, students are able to explore and present their solutions using virtual manipulatives.

The materials include the "Show What You Know" section within the Explain phase, which prompts students to create concrete models or draw pictorial representations to demonstrate their understanding of mathematical situations. For example, students create concrete models or draw pictorial representations to demonstrate their understanding of mathematical situations.

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

The materials include opportunities for students to demonstrate their understanding of the content and to extend their knowledge through an exit ticket. For example, students use video game scorecards to determine place value. A glitch in the game causes scores to come out in different formats (expanded, base-ten model, word form). Students determine the score and analyze relationships between each set of two cards. To connect to another math concept, students analyze and describe how the digits in the values represent ten times greater value (or ten times less value) of another digit. Students have learned to determine the area of rectangles with whole-number side lengths. To apply this concept to real-world and more complicated problems, students are asked to solve problems such as "Sam is creating an art collage with three pieces of art. He needs to know how much wall space the art collage will require. Use a ruler to measure the length and width of each frame to determine the area of each piece of art. Then, find the total area of the collage."

The materials include a Math Chat section that allows students to share their observations and learning through teacher-facilitated questioning. This allows students to deepen their knowledge of a variety of mathematical concepts and to ensure their understanding. For example, these allow students to apply conceptual understanding to new situations, developing flexibility in their thinking, critical reasoning skills, and strengthening their ability to make connections across mathematical concepts.

The materials include instructions for students to transfer their knowledge to unfamiliar problems. For example, the teacher asks students to "make a model of the problem with the plates and counters, write a description, and record the multiplication equation."

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 a Show What You Know activity that aligns with the Explore concept of the same name. Students build their understanding of the content, and teachers analyze data based on student performance.

The materials include lessons that help them achieve fluency and automaticity to complete grade-level mathematics. The scopes include opportunities for students to build their automaticity and fluency to complete grade-level mathematical tasks. The materials include a sequential order of teaching the facts for automaticity and fluency. Students are able to engage in fluency and automaticity practice with virtual manipulatives.

The material includes scope and opportunities for students to build their automaticity in multiplication and division facts by using an online assessment. For example, in the category of "7s," students are given 25 online questions such as " $7 \times \underline{\quad} = 21$," " $42/6 = \underline{\quad}$," " $70/\underline{\quad} = 10$," or " $9 \times \underline{\quad} = 63$." The assessment provides immediate feedback by showing a red or green dot after a student answers each math equation. At the end, students receive a final percentage grade.

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

The materials include a varied representation to help students develop multiple ways of representing, including opportunities for students to use a variety of learning pathways to build foundational skills. For example, students use concrete objects to model and describe contextual division situations. Students use task cards to solve division problems by drawing a model, showing repeated subtraction, and explaining in sentence form how the total was divided into equal amounts. The multiple representations help students understand division in various ways.

The materials include the use of digital lessons and practice games to learn by using a digital game to pretend to be farmers who need to take their crops to market. They receive a number and then select how many of a product can fit in each basket. After that, they answer a division problem based on their selected number. For example: "There are 64 strawberries and each basket can hold eight, so ____

baskets are needed." If a student answers correctly, they receive a positive comment. If the students answer incorrectly, immediate feedback is provided, and they receive feedback on why their answer was incorrect.

The materials include the Explore lessons that provide students with efficient, flexible, and accurate procedures throughout the learning pathways that build on one another to allow students to complete more complex concepts. For example, in the interactive practice, students practice composing numbers up to 1,200. Students previously learned to count up to 120 using objects and pictures. Students use the skills previously learned to practice on grade-level skills with interactive games.

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 include DOK questions that are teacher-facilitated during the Explore "Math Chats." These chats allow students to evaluate their learning and to engage in the learning process efficiently, flexibly, and accurately throughout the scope concept. For example, students use place value to add two-digit numbers. They also use place value charts and linking cubes to help model addition problems. Students use their Student Journal to show addition problems in pictorial model, equation, and number sentence forms. Afterwards, the teacher asks students to share their strategies and encourages them to ask each other questions to make connections and find similarities and differences in how they added. By doing so, students can evaluate their methods and share the benefits and strategies of different forms in addition.

The materials include the "Observation Checklist," which allows students to self-assess their understanding of the concepts in each Explore. While engaging with the lessons, students use the checklist provided to evaluate various mathematical approaches, which helps to develop their critical thinking and problem-solving skills. For example, students can show their depth of understanding of grade-level TEKS through assessments, virtual manipulatives, and structured conversations.

The materials include a model and a solution. Students represent and solve one- and two-step problems involving multiplication and division with diagrams, equations, arrays, and area models. Students begin this lesson by using Math Hunt Posters to solve multiplication and division problems. Students discuss different models and strategies used to solve multiplication and division problems. Students then show their work by using their Student Journal, in which they show their design of a diagram, equation, and the solving strategy they used. After the problems are solved by students, the teacher asks questions such as "How can models and strategies help you solve problems? Why is it important to represent a problem before working to solve it? What was a challenge you overcame today with the multi-step problems?" Through these discussions and activities, students are able to evaluate the methods used to solve the problem and individually determine which of the many methods was the most effective for them to use.

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

The "Content Support" page assists teachers with supporting students in selecting increasingly efficient approaches to solving mathematical problems. Having multiple approaches to problem solving allows students to gain confidence in working through mathematical challenges. For example, students represent equivalent fractions with denominators of 2, 3, 4, 5, and 8 using objects, pictorial models, and number lines. Students first begin to practice fractions using fraction bars, fraction circles, or area models to find equivalent and non-equivalent fractions, such as $\frac{4}{8}$ and $\frac{1}{2}$ (equal) or $\frac{2}{4}$ and $\frac{3}{6}$ (unequal). As students become proficient, they are introduced to using number lines to represent fractions. Students equally space number lines, such as 0 to 1 in four equal parts and 0 to 1 in eight equal parts. Students then label the number lines to show equivalency and non-equivalency. These increasingly efficient approaches allow students to use measuring tools to measure items (e.g., a crayon) to their nearest mixed fraction.

The materials include guidance to help educators build students' understanding of making connections by selecting increasingly efficient approaches to solve mathematics problems. For example, in the grade 3 Explore activity, teachers use a "Math Chat" with guiding questions such as "What are some ways we can model and solve a multiplication equation?" The materials include a "Content Support" tab that guides educators in teaching students to select increasingly efficient approaches to solve a variety of mathematical problems.

The materials include a "Take-Home Letter" for parents to work on concepts with students. The "Take-Home Letter" supports the teacher's guidance on selecting increasingly efficient approaches to mathematical problems.

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 explicitly state how they address the procedural emphasis of the TEKS. The "Content Support" page supports teachers in answering both the "why" and the "how" of the concept, facilitating student learning. For example, the procedural emphasis of the TEKS is addressed when students use the "Relationship between Multiplication and Division" section to provide procedural examples for educators to guide students in demonstrating.

The materials include the lesson description highlights with a conceptual emphasis on using base-ten blocks to model the multiplication of a two-digit number by a one-digit number. The procedural emphasis is highlighted when students are asked to write an equation and fill in the blanks for each multiplication problem using the practice of creating arrays to show their understanding of the concept of arrays. Students then use manipulatives to design and draw models of arrays and area models. Students use sentences and equations to describe their arrays, such as "There are 5 groups of 6 cards," and " $5 \times 6 = 30$ cards."

The materials also include a conceptual emphasis on subtraction by having students create a model of corn dogs bought and corn dogs sold. Students use base-ten blocks to represent the subtraction of the amounts on their Subtraction Work Mat. Procedural emphasis of the TEKS is further emphasized by having students use their Student Journal to solve subtraction problems through the use of equations, estimations, subtraction statements, and modeling with a number line.

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 both concrete and pictorial models to solve problems that are TEKS-aligned. Students learn division by making connections to the concrete models they used in Explore activities. Students extend the concept of division by drawing models of a division problem. For example, students use concrete models to describe multiplication problems by joining sets of objects, such as counters, to design arrays. Students then transition to drawing models of multiplication problems, such as drawing five circles with five dots in each circle. Students use abstract models to show the repeated addition form of multiplication, such as " $5 + 5 + 5 + 5 + 5 = 25$."

The materials include opportunities for students to learn division by making connections to the concrete models they used in Explore activities. Students extend the concept of division by drawing models of a division problem. For example, a student is asked to find how many pencils each of six students will get if the teacher buys 18 pencils. Students draw six circles with three dots in each to show the equal amounts. Finally, students abstractly display their answer by writing an equation such as $18 \div 3 = 6$.

The materials include opportunities for students to use abstract models to solve problems that are TEKS-aligned. For example, in Explore 1 of Addition and Subtraction Problem Solving, step nine of the "Procedure and Facilitation Points" guides students to complete number sentences in their Student Journals.

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

The materials include supports for students in connecting concrete and representational models to abstract (symbolic, numeric, algorithmic) concepts, as required by the TEKS. In the Multiplication Models scope, the "Procedure and Facilitation Points" guide students to make connections between solving problems using varying models. For example, students select a number card and then a comparison card, such as "3 times as many," "twice as many," or "5 times as many." Students create a model of the problems using manipulatives. Students continue to construct and explain multiplication by using the Check Up sheet to answer questions. Students use abstract expressions, drawn models, number lines of repeated addition, strip diagrams, and written solution statements to explain their thinking.

The materials include connections between concrete models, representational models, and abstract models to show their understanding of division and multiplication concepts by solving one-step math problems. For example, students construct a real-life model of a math problem by modeling how to figure out the amount of milk needed. After students have modeled this through a part-part-whole simulation, they draw representations of how to solve multiplication and division problems through part-part-whole models in their Student Journals. Students draw their models using a strip diagram to represent the problem and explain their thinking by writing different methods that could be used to find the solution.

The materials include a "Serial Review" that allows students to model math situations using drawings or manipulatives to reinforce understanding. Students begin by first using manipulatives and comparison cards to create models of multiplication.

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 students with the opportunity to develop their mathematical language skills using manipulatives, visual representations, and other resources to support conceptual understanding. For example, students use manipulatives in different problem scenarios to construct equal groups and show repeated addition. Students read the scenarios, make models of the problems using plates (for each problem) and counters, write both a description and a multiplication equation. As students work on the problems, they integrate learning math terms in their speaking and writing for this lesson, using terms such as *groups*, *equal*, *each*, *week*, and *arrange*.

In another example, every scope includes picture vocabulary in the Explain section, offering embedded language supports that help pre-teach academic vocabulary. For example, in the "Multiplication Strategies and Algorithms" scope in grade 3, students explore the commutative and associative properties of multiplication. Through the exploration activity and the Student Journals, students use the vocabulary terms they have learned to solve the problem: *number line*, *array*, *equal groups*, and *equation*.

The materials include a picture vocabulary resource, which allows students to build on prior knowledge to learn new vocabulary words. This includes both the new vocabulary word and an illustration to further emphasize the meaning. For example, in the Fractions scope, the materials include a picture vocabulary tab where students can find a slideshow and a student handout for students to cut and add to their math journals.

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 guidance on how to support and extend students' academic language through lesson instructions. For example, when communicating with peers and teachers, students may use the sentence structures provided to ensure their use of the new vocabulary is aligned with the concepts learned in the grade-level scope. Teachers guide students to communicate mathematical ideas with

terms such as *parts*, *whole*, *diagram*, and *equation*. Students identify parts of mathematical problems that can include one whole and more than one part. Students are instructed to create diagrams and equations, which will enhance students' use of these vocabulary terms when communicating and explaining their understanding of mathematics.

The materials include guidance for teachers to scaffold the use of academic mathematical vocabulary by including additional supports. Materials feature a "Scaffolded Instructional Guide" aligned to the TEKS, providing targeted lessons that address skills practice according to students' percentile levels. For example, the use of vocabulary when communicating with peers and teachers. The "Procedure and Facilitation Points" and DOK guide teachers in modeling the vocabulary aligned to the concepts and serve as a model for students to build on prior knowledge.

The materials include support for the use of academic mathematical vocabulary by using structured conversations. For example, teachers use lesson instructions to teach students how to determine the total number of objects by using arrays and area models. The teacher conducts the lesson, using math terms with students to communicate math ideas, e.g. *rows*, *skip-count*, *multiplication*, *array*, and *area*. Teachers also provide sentence structures to support students in responding with sentence structures such as "Our model should have . . . rows of. . . because. . ." and "We can find the total amount of items by . . . The total amount of items is . . ."

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

The materials include a guide for teachers to facilitate structured conversations with students and conversations between students and peers. Activities are included in the Structured Conversations that provide opportunities for students to use academic vocabulary to engage in the discourse and to further strengthen their understanding of and engagement with the content. For example, students connect mathematical vocabulary to their experiences and use the vocabulary handout and vocabulary slideshow to use the academic language and discuss financial literacy words or definitions that they are unfamiliar with. Students may also use the vocabulary in discussion with peers when working on Explore activities or lessons.

The materials include a Math Chat section where the students engage in math chats where they can ask questions and share their observations to justify their answers using vocabulary words. For example, one of the questions is, "Which perimeters were easiest to measure? Why?"

The materials include interactive games that provide vocabulary and connect vocabulary to their mathematics experiences. For example, students compare numbers to describe relationships between place value for numbers up to 100,000. Students begin by selecting a Video Game Scorecard and then use a place value chart to create a model of the scores on the card, which could be shown in word form, expanded form, or base-ten block form. Students then say their answer and compare aloud with a

partner and receive feedback. Provided sentence structures guide their discourse with sentences such as "... is ten times greater than. . . because. . ." or "The relationship between. . . and. . . is. . ."

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

The materials include embedded guidance to facilitate mathematical conversations, allowing students to hear math language with peers. The Structured Conversations activities allow educators to select an appropriate activity for the students to engage in that will allow them to have a conversation with their peers while demonstrating their knowledge of the given concept. For example, the Walk, Talk, Decide activity has students walk around the room while having a structured conversation with their partner, which allows them to move and process their learning at the same time. The teacher prepares the questions and prompts to complete the activity.

The "Teacher Toolbox" includes the Back and Forth structured conversation activity where students explain their understanding and clarify misconceptions with peers. The Structured Conversations activities allow educators to select an appropriate activity for the students to engage in that will allow them to have a conversation with their peers while demonstrating their knowledge of the given concept. For example, the Back and Forth activity has students use the questions and prompts provided by the teacher to engage with their partner. They explain and clarify any understandings and/or misunderstandings of a concept learned. The materials include Math Chats, where students ask questions and share their observations and learning. For example, students explore different units of weight and liquid volume to determine which units are most appropriate to use when measuring. Embedded guidance supports conversations with students to help them name and understand the correct unit to use when measuring. Teachers make inquiries from students with questions such as "What units of liquid volume or capacity do you notice on the items? What tools do we need to measure the objects to confirm capacity? What definition best describes liquid volume/capacity?"

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 that provides numerous questions for teachers to use when representing and solving one- and two-step problems involving multiplication and division. For example, in "Part 2: Model and Solve Two-Step Problems," teachers are reminded to check student work and address misunderstandings. Teachers are also guided to review students' work on their place mats and ask the provided questions to help students explain their thinking and work.

The materials include embedded guidance to anticipate a variety of student answers, including exemplar responses to questions and tasks. For example, in grade 3, guidance is embedded to anticipate student answers when students represent and solve multiplication and division problems. The anticipated

responses are distinguished by providing the questions in black and anticipated student responses in red. Additionally, in the "Procedure and Facilitating Points," teachers are reminded to monitor and talk with students as needed to check for understanding. Teacher questions to assess student understanding are provided.

The materials include teachers' guidance to listen to students' explanations and are provided with guiding questions to help students' understanding. The materials include embedded guidance to anticipate a variety of student answers, including exemplar responses to questions and tasks. The Math Chats found in the Explore section of the grade-level scopes provide teachers with prompts to ask students. The "Sample Student Responses" column in the Math Chats gives teachers the possible answers students may give pertaining to the concept discourse.

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 include TEKS process standards that are integrated appropriately. Integrating TEKS process standards into instructional materials ensures that students develop critical thinking, problem-solving, and mathematical communication skills alongside content knowledge. For example, the "Process Standards—Display, Explain, and Justify Mathematical Ideas" provides teachers guidance and allows students to use "mathematical processes to acquire and demonstrate mathematical understanding." For example, in Multiply and Divide, students compare fractions to everyday situations such as assembling pizzas.

The materials include guidance to teachers on how instruction is built on previous knowledge to help students integrate process standards. The teacher has students work in pairs to match pictures, numbers, and/or words. For example, students can match a card with a picture of an array of four rows of 11 with a card that reads " $11 \times 4 = 44$ " or a card with the word problem to match with a card that reads " $10 \times 4 = 40$ " (content): "Each movie theater ticket costs \$10. What is the cost of 4 tickets?" After students have made their matches, they can record two of their matches in their recording sheet. Finally, students explain some of their matches by sharing their thinking with their partners (process).

The materials include the integration of the TEKS process standards throughout the activities in the scope. For example, in grade 3, teachers use place value charts, base-ten blocks, drawn models of scores, and Scorecards to have students compare two game scores and describe their relationship between place value, such as comparing " $50 + 2 + 400$ " and " $3 + 500 + 80$ " (content). Teachers then make connections by answering questions such as, "What do you notice when the same digit is in 2 different place values?" (process).

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

The materials include a "Scope and Sequence" table that provides an overview and explains how the grade 3 process standards are embedded throughout the course. By highlighting their connections to the content standards by connecting new learning with prior learning and making connections to reinforce concepts, teachers are able to facilitate the application of the process standards for students to demonstrate their understanding.

The materials include an *Implementation Guide* that outlines how the curriculum incorporates the process standards throughout the learning pathways. The mathematical process standards are woven throughout the curriculum to create effective mathematical thinkers. For example, students are expected to create and use representations to organize, record, and communicate mathematical ideas. Students are also expected to connect and explain their mathematical ideas.

Additionally, the materials include a description of how process standards are incorporated into the learning pathways. These are outlined to guide educators in reinforcing the skills throughout the different scope lessons across concepts. The "Content Support" guide informs educators on how the standards will be applied. For example, students connect new learning with prior learning and make connections to reinforce concepts. Teachers are able to facilitate the application of the process standards for students to demonstrate their understanding.

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

The materials include an overview of the TEKS process standards incorporated into each lesson. In grade 3, lessons include lists of TEKS addressed in each lesson. After the list, process standards are listed, and examples are provided. For example, in the Multiplication Strategies and Algorithms lesson, examples of TEKS 3.1G show how students can use and justify their answers using and writing their algorithms for multiplication, such as in multiplying 22×5 .

The "Content Support" tab for educators explains the purpose of lesson components that integrate the process standards into daily practice. In the grade 3 lesson Compose and Decompose Fractions, the teacher guidance under "Key Concepts" highlights process standards students can use in the lesson. These include explaining a unit fraction and composing and decomposing a fraction using concrete objects, pictorial models, strip diagrams, or number lines.

The materials include support for students to use mathematical process standards to acquire and demonstrate mathematical understanding. For example, in the Multiply and Divide lesson, the teacher guidance under "Key Concepts" provides process standards students can use when multiplying and dividing. These include creating models in which sets of concrete objects are separated into equal sets, and creating models in which equal sets of concrete objects are combined.

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 include an overview that explains the importance of purposeful questioning as a tool to stimulate, challenge, extend, and clarify mathematical thinking. For example, students model and solve dividing 45 hot dogs equally in nine boxes by drawing a pictorial model to show their mathematical thinking. The teacher then prompts the students by asking, "How can you determine that the unknown number is correct using equations?" Students can show their deeper understanding by responding: " $9 \times 5 = 45$; $5 \times 9 = 45$; $45 \div 9 = 5$; and $45 \div 5 = 9$."

The materials include opportunities for educators to encourage students to develop a deeper engagement and understanding of the mathematical concepts. In the grade level Explore section, students and educators participate in Structured Conversations that allow students to interact with their classmates while thinking mathematically, problem solving, and making sense of the mathematical concepts. Several options are available to help students further develop stronger comprehension in the given area. For example, students determine the number of wheels needed for 27 robotic cars. Students solve the problem, and the teacher inquires with questions such as "What operation could be used to solve this problem? What equation would you use to solve this?" Students have the option to explain if they used multiplication, repeated addition, or another strategy to show how they made mathematical sense to persevere in solving the problem.

The materials include Student Journals that allow students to document their problem-solving processes, strategies, mistakes, and revisions over time. For example, these guided journals allow students to think mathematically, persevere through solving problems, and make sense of mathematics. For example, students work in groups to solve measuring tasks. Additionally, they work together to answer and record questions in their Student Journals such as "What kinds of objects would make sense for us to weigh using tons?" These activities support mathematical thinking and help students build problem-solving skills.

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

The materials include an overview that explains the importance of purposeful questioning as a tool to stimulate, challenge, extend, and clarify mathematical thinking. For example, students use containers to measure liquid capacity (gallon, quart, pint, cup). Students count and record how many times a quart, pint, and cup had to be used to fill a gallon. After students are done, the teacher can have students discuss advantages and disadvantages with questions such as "Which container did you have to use the least/most amount of times to fill the gallon container? If you needed 2 pints, but lost your pint measure, what could you use to obtain 2 pints?"

The materials include a variety of approaches to convey knowledge, strategies, justifications, and conclusions. For example, students reason about the size of two fractions by comparing and justifying their reasoning. Students show their understanding by drawing pizzas in the shape of circles and rectangles with the same denominator. If pizzas have different numerators, students can explain and justify the comparison by using pictorial models, number lines, or comparison (using symbols $>$, $<$, or $=$).

The materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks. In the "Spiraled Review," students have the opportunity to show what they know and to demonstrate their understanding with multiple strategies. The "Spiraled Review" questions suggest that "Answers may vary," giving students options in how they want to explain and justify their answers. For example, students solve tasks by measuring materials found in the classroom. The students then discuss questions such as "What could you do if you wanted to know the weight of an object, but you did not have a scale to use?" These activities encourage students to explore multiple solution paths and justify their reasoning.

6.1c – Materials are designed to require students to make sense of mathematics through multiple opportunities for students to do, write about, and discuss math with peers and/or educators.

The materials include opportunities for students to write about mathematical concepts with their peers and/or educators. The "Communicate Math-Writing" section allows students to share their mathematical ideas with others, use appropriate visual representations, and use sentence stems to accurately write about the given concept. For example, students work in groups and use manipulatives to solve addition problems. The teacher uses guiding questions to foster a discussion. Students then write a number sentence to find the sum of each problem. Finally, students draw a pictorial model for each problem. The materials are designed to require students to engage in writing prompts that address a variety of concepts and mathematical relationships.

The materials include opportunities for students to do and discuss math with their peers and/or educators. The "Procedure and Facilitation Points" section encourages students to work with their

partners while performing and discussing mathematical concepts. For example, students do math with their peers by pretending to buy a vehicle. Students use play money and decide how to arrange the bills in order to make counting it more efficient. Students then use the student handout to write about the amount of money by writing it in standard form, expanded form, and expanded notation. The teachers check for students' understanding by using the provided question prompts.

The materials include the "Procedure and Facilitation Points" section, encouraging students to work with their partners while doing and discussing mathematical concepts. For example, students work in groups of three or four to do math. As they collaborate with peers, they use rulers to discuss and determine the lengths of objects to the nearest half, fourth, and eighth inch. After students have measured the objects, they use their Student Journals to write sentences that reflect on their measuring tasks. At the end of the activity, the teacher may use the Math Chat questions to check for student understanding.

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 support for educators in guiding students to share and reflect on their problem-solving approaches. In the grade level Explore, students and educators engage in the Math Chat, which is a guided discussion aligned with the concept students are working on. It allows students to explain and justify their understanding. For example, students determine the perimeter of a polygon or a missing length. The teachers ask students to reflect on what experience they have had finding a perimeter in prior lessons. The teacher has students explain what the perimeter is. Students explain two methods by which perimeters may be determined using their math chart for assistance. When students solve the perimeter of polygons with missing side measurements, teachers prompt students to justify how they found the missing length.

The materials include opportunities for students to work alongside their peers in discussing mathematical concepts. The "Communicate Math-Discourse" section provides educators with an overview, facilitation clarification, and expectations for the discourse. Students are encouraged to engage in conversations that allow them to explain, justify, and reflect on mathematical concepts while sharing their problem-solving strategies. For example, students work in groups to explain how unit fractions represent parts of a whole when combined. Students explain why they cut an item into a certain number of parts (based on Task Cards). Students justify why $\frac{1}{3} + \frac{1}{3} + \frac{1}{3}$ does not equal $\frac{3}{9}$. Students explain how composing a fraction involves the addition of unit fractions.

In another example, students turn and talk with partners to share how they would solve the following problems. Students are encouraged to share their thoughts and experiences with the class using the following questions: "If you have read one equal part of the 8 chapters in a book, what fraction of the book have you read?"

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

The materials provide educators with prompts for small-group interventions. The educator observes students and identifies any misconceptions there may be over the grade-level concept. The prompts then have educators guide, question, and model (give feedback) based on student work. The "Instructional Supports" section in the grade level Explore gives educators extra guidance to ensure students are

understanding the concepts. For example, in grade 3, the guide states in number 6, "as students discuss and represent the scenarios, encourage them to label numbers . . ."

The "Instructional Supports" section in the grade level Explore also guides teachers to help students find equivalent fractions and monitor understanding by talking with students as needed. For example, in the grade 3 Explore 3 activity, the facilitation points state, "Point out that the 0 is a tiny distance from the edge of these rulers. Students need to make sure they start measuring at 0 on the rulers."

The materials also include prompts and guidance for educators to provide feedback to students. For example, in "Interactive Practice—Who Wants To Multiply," students construct extended forms of multiplication. If the student answers correctly, they receive positive feedback. If the student is asked, "What is 4×54 ?" and the student answers " $(4 \times 20) + (4 \times 5)$," the student will be told that their answer is wrong. They are then prompted with, "Not quite. Do not worry, you can reset the numbers and try again."