

# Accelerate Learning Inc.

## Supplemental Spanish Mathematics, 2

### STEMscopes Texas Math Pulse–Grade 2 Spanish

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
<b>Supplemental</b>	<b>9798330804856</b>	<b>Digital</b>	<b>Static</b>

#### Rating Overview

TEKS SCORE	TEKS BREAKOUTS ATTEMPTED	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	158	6	Flags Addressed	Not Applicable	0

#### Quality Rubric Section

RUBRIC SECTION	RAW SCORE	PERCENTAGE
1. <a href="#">Intentional Instructional Design</a>	20 out of 20	100%
2. <a href="#">Progress Monitoring</a>	20 out of 24	83%
3. <a href="#">Supports for All Learners</a>	33 out of 35	94%
4. <a href="#">Depth and Coherence of Key Concepts</a>	16 out of 16	100%
5. <a href="#">Balance of Conceptual and Procedural Understanding</a>	38 out of 38	100%
6. <a href="#">Productive Struggle</a>	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	3	0	0
3. Parental Rights and Responsibilities	0	0	0
4. Prohibition on Forced Political Activity	0	0	0
5. Protecting Children's Innocence	0	0	0
6. Promoting Sexual Risk Avoidance	0	0	0
7. Compliance with the Children's Internet Protection Act (CIPA)	0	0	0

SUITABILITY EXCELLENCE FLAGS BY CATEGORY	IMRA REVIEWERS
Category 2: Alignment with Public Education's Constitutional Goal	0
Category 6: Promoting Sexual Risk Avoidance	0

# IMRA Quality Report

## 1. Intentional Instructional Design

Materials support educators in effective implementation through intentional course and lesson-level design.

### 1.1 Course-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.1a	All criteria for guidance are met.	4/4
1.1b	All criteria for guidance are met.	3/3
1.1c	All criteria for guidance are met.	2/2
1.1d	All criteria for guidance are 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 in complexity across grade levels. This section also includes a clear Texas Essential Knowledge and Skills (TEKS) aligned scope and sequence of grade 2 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 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*; for example, "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 Pathway" to assist 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" 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*; for example, "Adaptive Development."

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

The materials included in the *Scaffolded Instruction Guide* 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. They also include 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" with 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 are 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," 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.

### **1.2b – 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 also include important vocabulary, explain what is being taught at school, and 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 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	Not all points were given because all criteria for guidance were not met. The only feature the teacher can enable or disable is the calculator 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
—	<b>TOTAL</b>	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.

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 include clear guidance for teachers to administer the assessments efficiently. The materials guide teachers to administer the assessments by providing step-by-step guidance for administering each component of the assessment. It includes a teacher handout that ensures consistency in the administration of the included assessments.

The materials include an assessment that allows teachers to evaluate 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 provided guidance for teachers to administer assessments that include the ability for students to request manipulatives and "Supplemental Aids" for students who meet eligibility criteria.

### **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. However, it does not allow educators to enable and disable these supports for individual students. The only feature the teacher can enable or disable is the calculator when assigning assessments to students. A paper copy of the "Skills Quiz" assessment may be obtained for each TEKS and 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 and scopes, and definitions associated with the TEKS and 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 the "Diagnostic Assessments" that help access prior knowledge before engaging in the content to allow students to demonstrate their learning. Additionally, beginning, middle, and end-of-year "Benchmark Assessments" and "Growth Measurement Assessments" are designed for pre-and post-assessment to track growth on grade-level standards.

The materials include the editable google file "Skills Quiz"; the student can do 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. They also include diagnostic assessments with multiple-choice questions aligned with the TEKS.

The materials include the "Suggested Scope Calendar" and 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, selecting, 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 detailed reports to help teachers.	1/3
2.2b	All criteria for guidance are met.	1/1
2.2c	All criteria for guidance are met.	2/2
2.2d	All criteria for guidance are met.	2/2
2.2e	This guidance is not applicable to the program.	N/A
—	<b>TOTAL</b>	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. Additionally, the materials guide teachers to interpret student performance with a scoring rubric. The scoring rubric has clear guidelines for interpreting student performance based on four percentile ranges for each standard. For example, the "Heat Map" serves as an item analysis report that examines performance on specific skills or standards.

The materials include the "Observation Checklists" that provide 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. Students can use a virtual digital activity, in "Elaborate," to design and name a fraction. For example, if the student sees four galaxy creatures, the student cuts the pizza into four equal pieces and also provides the name for the parts (fourths). If the answer is correct, they receive feedback such as "That's Right!" If the student creates the wrong fraction, the student receives feedback such as "Oops, Try Again!"

### **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" that is made available to guide & support students having difficulty understanding the concepts and TEKS taught by reviewing and reteaching the skill and TEKS

with multiple tasks and activities. This element provides teachers with materials based on students' 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 been observed to perform 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 use 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, some of

the questions are "Which strategy did you find yourself using more?" or "When might you need to add more than two numbers at a time in your everyday life?"

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 "What number is one more than/less than . . . (a number 0–100)?" or "Can you draw a set of objects that is more than/less than/equal to . . . (a number 0–100)?"

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. For example, if a student performs at 25%–50% on assessments, then the teacher is given explicit guidance on a small group intervention lesson.

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% on the 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 support in each of the "Explore" activities. For example, the "Explore 1" activity includes a section for language support 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 no 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 and 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 *Scaffold Instruction Guide*, which includes educator guidance for scaffolded lessons based on the students' performance on scope assessments. For example, if a student performs at grade level or above grade level on assessments, then the teacher is given explicit guidance on enrichment activities and extension activities.

One enrichment activity, "Solar Cooking Pane," includes real-world applications and cross-curricular content. Students problem-solve real-world cooking problems that deal with temperature and addition and subtraction. The *Scaffolded Instruction Guide* helps teachers select lessons and activities to support student learning at each proficiency level.

The materials include the "Coming Attractions" for students who are ready to extend their understanding of fractions. Skills to be learned in the next year (grade 3) are described and activities suggested, such as representing fractions greater than zero and less than or equal to one with denominators of 2, 3, 4, 6, and 8 with concrete and pictorial models. They also represent fractions using strip diagrams and number lines, as they will be increasingly used in grade 3.

The materials include extension activities that enable students to deepen their understanding of a given concept and to extend their understanding beyond what they have been taught. These activities also

allow educators to gather data to support student learning needs. For example, the "Fluency Builder" activity in each grade level scope allows students to 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 support, and a calculator that the 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 "Skills Quiz," teachers can assign assignments with calculator use by clicking and turning on and off the "4 Function Calculator."

The materials provide a feature where teachers may assign "Explain" activities with the ability for students to use calculators, by the teacher turning on and off this feature. 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 to enlarged text, text-to-speech feature, 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 "Procedure and Facilitation Points" to assist students in articulating their understanding of composing (Two Dimensional) 2-D shapes. For example, using digital features, students are able to compose 2-D polygon shapes and identify the number of sides and vertices, by supporting structured conversations, helping students express and represent their mathematical understanding through verbal explanation and discussion.

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" included in which offers students a variety of ways to express their thinking and to keep track of 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 serve as guidance for educators to build background knowledge for students by anchoring big ideas; for example, in “Represent Numbers to 1200,” the facilitation points guide teachers to ask students questions that activate their prior knowledge on counting groups.

The materials include the “Math Chats,” which serve as teacher-guided discussions to engage students. Key patterns, features, and relationships are highlighted and connected through multiple means of representation. For example, the relationship of a division problem by various teacher question prompts, such as, “What kind of problem is this (division)? How do you know (given a total and the number of groups)? How did you make your model? How can we use subtraction to create a number sentence to describe your model?”

The materials include direct prompts for educators to build knowledge by activating prior knowledge; for example, in “Explore 3,” the activity guides educators to help students access the task by asking the following guiding questions: “Do you enjoy shopping for electronics? What does a store ad look like? What patterns are you noticing? Is this number less than or greater than the original price?” Students anchor the big ideas by making connections through teacher question prompts.

### **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 Chat,” 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 include multi-tiered intervention methods through small-group intervention to help students learn to partition objects to represent and identify examples of fractions. For example, the teacher begins this intervention by having guided discussions using students' background knowledge with questions such as, "What do you call one part of this whole? How many halves equal one whole? What do you notice about the size of each half?" Students then work collaboratively in pairs to create examples and nonexamples of fractions with activities that include sorting cards with pictures of fractions. Students sort the cards as examples and nonexamples. For students who are still having difficulty, students are instructed to cut the cards to compare the sizes and understand why they are equal/unequal.

The materials include multi-tiered intervention methods with intervention descriptions, materials needed, and "Procedures and Facilitation Points" divided into parts. For example, "Model and Describe Multiplication," "Model and Describe Division," "Model and Describe Multiplication and Division," and "Create Multiplication and Division Situations." Each 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 *Scaffold Instruction Guide*, which includes educator guidance for scaffolded lessons based on the students' scope assessment performances. If a student performs at grade level or above grade level on assessments, then the teacher is given explicit guidance on enrichment activities

and extension activities. For example, a "Solar Cooking Panel" that includes real-world applications and cross-curricular content. In this activity, students are problem-solving real-world cooking problems that deal with temperature and addition, and subtraction.

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

The materials include enrichment and extension opportunities for students. This differentiated activity meets the needs of diverse learners and allows for further comprehension and access to the scope. For example, enrichment activities are provided through integrating real-world events, such as collecting coins and contributing them to the Make-A-Wish Foundation. Students look at a picture and read about the background of the picture, which includes raising funds through social media and contributing to charities to help children with critical illnesses. After viewing and discussing the picture, students view the mixed coins (some showing front side, some showing back side) and determine their value. Students extend their thinking with questions such as, "Before donating the coins to charity, Emily finds one more dime. What is the total value she can donate now?"

### **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 did you notice about the different strategies used to determine the number of snacks in each box/row? Think of another time you separated items into equal groups. How was the process similar or different?"

The materials include prompts and guidance to support teachers in providing timely feedback during lesson delivery. For example, in "Model and Describe Division," the teacher is provided with guiding questions to begin the lesson. Students are then read a scenario about a worker having to divide snacks equally into boxes and asked to help solve the problem. As students work on the problem, the teacher has question prompts that can be used, such as, "How did you solve this problem? How many snacks

were in the bag? How many boxes did the problem call for? How did you figure out how many snacks fit in each box?"

### 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 are 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 materials include the "Teacher Toolbox" tab, which includes a section labeled "Multilingual Learners." The information provided here ("Linguistic Diversity") allows teachers to use embedded resources to support linguistically diverse learners, using research-based tools and strategies for various proficiency levels. For example, a section in the teacher guidance of each "Explore" section titled "Language Supports" 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 provided implementation guidance on how to effectively use materials in state-approved bilingual and English as a Second Language (ESL) programs. The bottom portion titled "Soportes de idiomas" provides teachers with guidance for bilingual learners by having teachers demonstrate instructions. For example, teachers should model how to "plot a point on a number line." Additionally, to support bilingual/ESL students, teachers can create sentence structures so students can respond in journals such as, "\_\_\_ es mayor que \_\_\_" and "\_\_\_ es menor que \_\_\_."

The materials include guidance to support emergent bilingual students in developing academic vocabulary through oral discourse. Teacher guidance includes having students ask each other questions and challenge each other's thinking. For example, teachers have access to 524 picture vocabulary cards in Spanish that can be used with instruction; these picture cards are also available in English for students to learn English while initially working with Spanish words. Teachers provide sample sentence frames to assist students with peer interactions.

### **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, students work with their partner to identify cognates and similarities between English vocabulary and the vocabulary in their home language. Students identify academic vocabulary words by using the term *igual* and the English term equal and emphasizing the similarities between the noun *partes* and the English term parts. In this activity, students can practice the shape names by making cross-linguistic connections.

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. In the "Explore 1 Language Supports" section in the "Fractions" scope, the guidance allows teachers to orally review academic vocabulary, build background knowledge, increase comprehension, and make cross-linguistic connections. For example: using the term *igual* and the English term equal and emphasizing "the similarities between the noun *partes* and the English term parts." Students practice making cross-linguistic connections through oral discourse.

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. Students may utilize sentence stems provided, as well as

reference cross-linguistic connections with the words *igual* for equal and *partes* for parts, when writing in their student journals.

**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 depth of understanding to respective TEKS and/or 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 better 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 2, the materials provide enrichment and extension activities that increase in rigor and complexity. For example, in the activity titled "Math Today," 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 2, students begin a scope in "Data Analysis" by starting with a "Hook" activity that includes drawing tally marks for even numbers in the data collection sheet. After additional tasks in this scope, students advance to creating pictographs given tally mark information, and students advance to above-level work such as using charts to answer questions using given charts, and students drawing graphs (with up to four categories) to display given data.



## 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
—	<b>TOTAL</b>	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 2 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, students begin learning the concepts of multiplication and division by first modeling and describing what is happening to each concept. Students then make connections by working with both multiplication and division problems and determining which operation is best to use to solve the problem. To solidify their understanding of the relationships between multiplication and division, students work on creating their problems that involve multiplication and division story problems and their answers.

The materials include a background knowledge overview in the "Content Support" tab that explains what students learned in their previous grade. For example, in kindergarten and through at-home experiences, students learn that objects can be counted. Students are counting and organizing collections within 1000. This all leads to students beginning to write number sentences to add numbers using place-value and equations.

The materials provide coherence across grade levels that allow students to see mathematics as an interconnected web of ideas. The materials include guidance for teachers to reinforce concepts. For example, the materials include teacher guidance to access background knowledge by asking questions about the different ways to group the items by ones, 10s, and 100s. For example, the question states, "What are you counting by to find the total number of seeds?"

### **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 grade level. The well-structured mathematical progression allows students to build on prior knowledge while introducing new, developmentally

appropriate skills. For example, students use knowledge of how numbers are ordered and number value while using open number lines to find the relative position of whole numbers (up to the hundreds). Prior knowledge of number lines was taught in grade 1, where students were exposed to open number lines and learned to order whole numbers up to 120.

The materials include a "Content Support" tab for each scope. The "Content Support" page includes a "Coming Attractions" section that helps teachers look ahead at what is to come. An overview section that connects the patterns, big ideas, and relationships of each grade level. For example, students learn to name fractional parts using words and count fractional parts beyond one whole. Students also learn to partition objects into equal parts and explore the relationship between the number of parts and their size. By grade 5, students take what they learned in grade 2 and increase fraction knowledge by being able to add and subtract fractions with different denominators, and later extend their knowledge of fractions by being able to multiply whole numbers and fractions.

Additionally, students extend counting and cardinality skills by generating sets of objects and creating patterns in the teen numbers. They also read, write, and represent numbers to at least 120, and extend number knowledge by understanding the concepts of one more and one less.

#### **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-" and "Post-Explore" sections with questions of different DOK levels, such as students begin counting beyond 100 and learn to draw, join, separate, or compare sets of 10 to solve word problems. Students extend their knowledge of numbers by creating concrete and pictorial models to compose and decompose numbers up to 1200, and students can represent numbers up to 1200 in standard, word form, and expanded forms. The knowledge of numbers in grade 2 is enhanced by having students in grade 3 work with numbers in new methods, such as rounding them to the nearest multiple of 10, 100, 1,000, or 10,000 and using these rounding strategies to help add and subtract.

The materials include a background knowledge overview in the "Content Support" tab explaining what students learned in their previous grade. For example, procedures involve having students understand the value of numbers to a greater depth with questions such as "Why do you put a zero in the number 407?" or "How do you write a number in expanded form?" Procedures to advance learning of numbers in grade 3, including learning the order of numbers does not matter ( $295 + 408$  is the same as  $408 + 295$ ) and learning 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 120 to count by 10s. They can also count forward to 100 and backward from 120 by ones, and students learn to count objects placed in varying formations. The teaching of counting up to 100 will ease and enhance students' learning to count past 120 in grade 2. In addition, students in grade 2 learn to draw, join, separate, or compare sets of 50 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 by and 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, base-10 blocks to model numbers. Students are able to add virtual cubes, flats, longs, and units to make a collection and then determine the value of the created model of base-10 blocks. Later in the pathway, students are able to extend place value by using a virtual interactive activity that involves comparing two separate numbers and judging their value using the symbols for greater than, less than, or equal to.

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 an understanding of the content. For example, students practice composing numbers up to 1200. Students previously learned to count up and compose numbers up to 12 objects and pictures. Students use the skills previously learned to practice grade-level skills with interactive games. 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.

### 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. Students begin learning time by categorizing activities done in the "a.m.," and activities done in the "p.m." The complexity of learning time increases through the pathway as students learn to read analog clocks and write the time separating the hour and minutes with a colon, and read a digital form of time and draw the hour and minute hands on the clocks.

The materials include an interactive practice where students practice counting up to 1200 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 practice composing numbers up to 1200. Students previously learned to count up and compose numbers up to 120 objects and pictures. Students use the skills previously learned to practice grade-level skills with interactive games. Students use their knowledge of place value and number lines to work with two-digit numbers. As students develop proficiency, they are tasked with working with three-digit numbers toward the end of grade 2.

The materials include an "Explore" section of each concept, and students are allowed 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 1200.

## 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
—	<b>TOTAL</b>	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 generate numbers that are greater than or less than a given number. The teacher asks, "What patterns are you noticing? Is the number less than or greater than the discounted price? How do you know? When you add to the ten/hundreds place or take away from the tens/hundreds place, what digit changes? Why?"

In another example, students determine the value of a collection of coins and use symbols to describe their value. The teacher asks, "What information do we know? What information do we need to find out? What strategy did you use to count your coins? What was the total for the collection of coins in your bag? How do you write the total using a dollar sign, decimal, and cent sign? How many of each type of coin were in your bag?"

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. For example, the teacher asks questions such as, "What strategy did you use to count the cubes more efficiently?"

#### 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, students are provided base ten blocks (nine ones, nine tens, nine hundreds, one thousand). Students use the provided store ads and build the advertised prices (discounted, original, competitor's) using the base ten blocks.

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 three friends. Partition the pizza into four equal pieces," or "Carol wanted to cut the brownies she made into eight equal pieces. Partition the brownies into eight equal pieces." In addition, students are able to explore and present their solutions using virtual manipulatives.

The materials included in the "Show What You Know" section within the "Explain" phase include tasks that prompt 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 provide opportunities for students to demonstrate their understanding of the content and to extend their knowledge through exit ticket tasks. These allow students to apply conceptual understanding to new situations, developing flexibility in their thinking, critical reasoning skills, and the ability to make connections across mathematical concepts. For example, students use bags with pictures of hamburger toppings and coins that equate to their cost. Students count the coins to determine the cost of each topping. To extend their understanding, students are asked to create a model of a cost (i.e., 62 cents) in more than one example of a collection of coins. Students also show their skip counting strategies to display their fluency in counting towards higher amounts.

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. This activity requires students to use number lines to represent addition and subtraction problems.

The materials include instructions for students to transfer their knowledge to unfamiliar problems, and students are guided to understand that there are two types of division problems (partitive division and quotative division). Students experience the difference in the division process with questions such as, "There are twelve apples and three friends. If we share the apples equally with each friend, how many apples will each friend get?" and "There are twelve apples. Each bag holds three apples. How many bags do we need?"

## 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. This activity builds fluency and automaticity to complete grade-level tasks. For example, students are provided lessons to help them achieve fluency and automaticity for adding and subtracting within 20 by using mental strategies. Students are provided with various games and stations that allow for fluency and automaticity, such as "Related Facts within 10, Plus/Minus Ten, Using Ten, Differences within 20, Sums within 20."

The materials include lessons that help them achieve fluency and automaticity 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 of addition and double facts by using an online assessment. For example, in the category of "Doubles," students are given 25 online questions such as " $6 + 6 = \underline{\quad}$ ," " $\underline{\quad} = 8 + 8$ ," or " $\underline{\quad} = 9 + 9$ ." Students are provided immediate feedback on whether their answers are correct by receiving a red or green dot after answering each math equation. After answering the set of questions, the 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 to multiply. Students are given multiplication questions with one missing part and a picture model of the problem. For example, "3 rows, ? ducks in each row, 9 total ducks," or "? rows, 5 ducks in each row, 20 total ducks." Students receive a positive response if their answer is correct. If their answer is incorrect, students are immediately asked to try again with another problem.

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 1200. Students previously learned to count up to compose numbers up to 120 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. Students 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 and make connections, as well as to 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 of 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 students' models and solving addition and subtraction problems within 1000. Students are given opportunities to solve math problems using place value, number lines, or compensation. As students work on addition and subtraction problems, the teacher asks reflective questions to have students relay which method they found more effective. The teacher asks questions such as, "How can you use compensation to solve this problem? How is this strategy similar to the place value strategy?" Afterwards, students write an addition and a subtraction math word problem to go with a number sentence. Students compare their word problems, and then switch word problems to solve and show their choice of strategy to solve.

## **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 begin measuring by estimating the lengths of objects. For larger items, students may use rulers connected end to end or floor tiles to help measure. Students can also use craft sticks by first determining their length using one-inch tiles. The teaching of measuring advances so that students move from one-foot rulers to yardsticks. As students work with these tools, teachers may ask questions to determine understanding such as, "How can you describe the length of \_\_\_\_ in whole numbers? What do you estimate the length will be? A toy truck measured 3 inches. A toy car measured 2 inches. What is the sum of the combined lengths of these two toys?"

The materials include guidance to help build students' understanding by connecting prior knowledge of individual units, and students advance to being able to use base ten blocks to represent numbers up to 1200. As students work on representing numbers, they have to determine if the numbers are odd or even. For example, when students play the "Four in a Row" game, students can analyze the objects on the cards to compare and justify why they think the numbers are odd or even.

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
—	<b>TOTAL</b>	11/11

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

The materials explicitly state how the procedural emphasis of the TEKS is addressed. The "Content Support" page guides 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 are then asked to apply the concept of multiplication models to having them draw models of multiplication problems through drawing of groups, repeated addition, and sentences describing the multiplication pattern.

The materials include the lesson description highlights with a conceptual emphasis, having students use a "Story Mat" and "Cookie Orders" to pretend to make cookies for a school bake sale. Students use order cards to create cookies as ordered. For example, an order for three cookies with 10 chocolate chips on each cookie would be modeled on the "Story Mat." Procedural emphasis of the TEKS is addressed when students are then asked to apply this concept of multiplication models to having them draw models of multiplication problems through drawing of groups, repeated addition, and sentences describing the multiplication pattern.

The materials also include the lesson overview, emphasizing having students use the prior "Explore 1" lesson on covering rectangles with squares, which was used to introduce the concept of area. This skill is extended to include the "Explain 1" lesson, giving explicit guidance to help students make the links between using hands-on squares to cover rectangles to using multiplication or repeated addition strategies to find the total number of squares needed to cover an area. This lesson further extends the concept and procedural emphasis by having students use their student journal to draw the area on a grid (of five different parts of a home) and color in the number of square units that equate to the areas of each part.

### 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. For example, students add and subtract two-digit numbers by first using an open number line as a manipulative to communicate the idea of addition. Students use "Real Estate

Agent" cards to create additional problems and design a pictorial model. Students complete the assignment by writing an abstract model of the problem, such as " $51 + 8 = 59$ ."

The materials include opportunities for students to use abstract models to solve subtraction with two-digit numbers. For example, students connect the concrete models they construct during "Explore" activities, using a blank number line as a manipulative. Students continue to make connections to the concept of subtraction by drawing models of subtraction problems and using abstract models of the subtraction problems with the use of digits.

The materials include opportunities for students to use abstract models to solve problems that are TEKS-aligned. For example, in "Explore 1" of "Add and Subtract Two-Digit Numbers," number six 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 support for students in connecting concrete and representational models to abstract (symbolic, numeric, algorithmic) concepts, as required by the TEKS. Models begin by having students use manipulatives. For example, students use cuisenaire rods to model "Fence Section Plans" that include the use of halves, fourths, and eighths. After constructing models of the "Fence Section Plans," students use their student journal to label and color in a model of the fractions that equal more than one whole. Students use the word form of fractions, such as "twenty-seven eighths," to describe how their fence section was partitioned. Students explain their thinking by writing sentences to describe what changed and what stayed the same for each fence section.

The materials include connections between concrete models, representational models, and abstract models to show their understanding of division and multiplication concepts. For example, students begin by first using counters to construct a model to answer questions, such as figuring out how many total stickers there would be in three pages if each page held six stickers. Students continue to explain their thinking to multiply and divide by working on multiplication and division problems. Students draw models to record the problems and solutions on the "Checkup" sheet. Students also use sentence stems to share the correct numbers used to solve the questions. Lastly, students show their understanding by creating a multiplication and a division problem by writing out their own created problem, drawing a model of the solution, and showing the solution in an abstract model.

The materials include the "Spiral Review" that allows students to model math situations using drawings or manipulatives to reinforce understanding. For example, students begin by cutting construction paper into equal parts. After cutting each construction paper into equal parts, students draw lines on the rectangle to show equal parts.

## 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
—	<b>TOTAL</b>	<b>8/8</b>

### 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 help with understanding the concepts. For example, in the "Represent Numbers to 1200" scope in grade 2, students are counting and organizing collections of objects within 1000. They are guided to explain their answers using the terms "ones," "tens," and "hundreds."

Another example, every scope includes picture vocabulary in the "Explain" section, offering embedded language supports that help pre-teach academic vocabulary. Students use visuals of advertisements and base ten blocks to compare numbers as being greater or less than another number. Using task cards, students use the base ten blocks to model their math problems. Through these activities, students develop their math language by using phrases and terms, such as "greater than," "less than," "original price," "discount price," "more," "less," and "compare."

The materials include a picture vocabulary resource, which allows students to build on prior knowledge to learn new vocabulary words. For example, students use picture vocabulary visuals to build their academic vocabulary. 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. Materials guide teachers to help students use terms, such as "greater than," "less than," and "equal to," as they communicate and use academic mathematical vocabulary in context. After having used such terminology in prior "Explore" activities, students use the "Explain"

activity to communicate their understanding of comparing and ordering numbers with the same terms—"greater than," "less than," and "equal to."

The materials include guidance for teachers to scaffold the use of academic mathematical vocabulary by including additional support. 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 are guided to conduct a lesson to help students write and locate positions of numbers on open number lines. Teachers and students use math terms such as "closer to," "halfway," "middle," "between," and "distance" when conducting this lesson. Additionally, teachers provide, in "Language Supports," students with sentence frames to help students communicate their understanding, such as "I placed . . . close to . . . because . . . ; I placed . . . between . . . and . . . because . . . ; The distance between . . . and . . . 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. Several 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 and engagement with the content. For example, students work with activity cards to distinguish activities that are done in the morning and those done in the afternoon and night to understand the meaning of A.M. and P.M. Students then use structured sentences to support their understanding when discussing time with sentences such as, "What is one activity you do in the A.M.? What is one activity you do in the P.M.? And I do . . . in the A.M./P.M."

The materials include a "Math Chat" section where the students engage in math chats; they ask questions, and have opportunities to share their observations and learn to justify their answers using vocabulary words about addition and subtraction. For example, one of the questions is "How did making a ten help you solve the equations for each lemonade order?"

The materials include interactive games that provide vocabulary and connect vocabulary to their mathematics experiences. For example, students are provided a handout to be used along with a slideshow of vocabulary words. Students apply mathematics vocabulary through discourse during the lesson, cutting and pasting the words in their "Picture Vocabulary Interactive Notebooks." Students also discuss and verbalize the words through teacher questions: "What do you picture in your mind when you hear this word? How would you rephrase the definition in your own words?"

#### **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 materials include the *Teacher Toolbox* with the "Back and Forth" structured conversation activity, where students explain their understanding and clarify misconceptions with peers. This task supports opportunities for students to interpret and analyze mathematical models and representations through guided peer discussion. For example, students work in small groups to play a game to match game cards that have addition and subtraction equations, and matching cards that use number lines and strip diagrams to show how to solve the equation. Students take turns calling out to their partner their card, such as "458 plus 542" or "184 minus 107." Opponents provide the matching number line or strip diagram that matches the solutions if they have the matching card. Students continue to play the game until all matches are completed. The materials include "Math Chats" where students ask questions and share their observations and learning. The overview of the "Discourse" section in the "Communicate Math" states, "Discourse provides students the opportunity to share ideas with others to solve problems, increase learning, or express opinions." For example, as students work with base ten blocks and discuss representing and solving addition and subtraction word problems, the teacher guides students with the following questions: "Do you need to regroup these rods? Why? How many total flats did you take away? How many units are left over?"

#### **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 having students generate numbers that are greater or less than 120. For example, students use place value and symbols to compare numbers. Teachers are also guided, in "Procedure and Facilitation Points Part 1," to check for student misconceptions. In addition, teachers are also guided to listen to students as they build numbers and check for accuracy. Follow-up guiding questions are provided for teachers to use in assisting students.

The materials include embedded guidance to anticipate a variety of student answers, including exemplar responses to questions and tasks. For example, students compose 10 with two addends with and without concrete objects. In "Procedure and Facilitation Points," guidance is embedded to anticipate student

answers. The anticipated responses are distinguished by providing the questions in black and anticipated student responses in red. Teachers are encouraged to monitor and talk with students to check for understanding. Teacher follow-up guiding 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. For example, in the "Math Chat" section, educators are provided guidance to anticipate student responses, prompts to ask students, and examples for responses and questions. For example, 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
—	<b>TOTAL</b>	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."

The materials include guidance to teachers on how instruction is built on previous knowledge to help students integrate process standards. For example, teachers use "Explore 1" to help students generate numbers that are greater than or less than a given number. Students use base ten blocks, store ads, and place value mats to construct the numbers in the ads (content). Teachers use "Math Chats" to ask students to explain what strategies they used to regroup numbers, such as, "If the original price is \$967, what is the discount price if it is \$100 less and the competitor's price if \$100 more?" (process).

The materials include the integration of the TEKS process standards throughout the activities in the scope. When embedded, these standards allow students to engage in reasoning, make connections across concepts, and apply math to real-world situations. For example, the teacher has students work in pairs or small groups to find matching cards of numbers (i.e., one card contains words "Six hundred eighty-three" and another card contains a picture of 6 flats, 8 longs, and 3 units) (content). After students have found the matching pairs and recorded some of their matches, students explain why their cards match and share their responses with their peer/group (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 2 process standards are embedded throughout the course. 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. Under the "Mathematical Process Standards,"

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process standards are woven throughout the curriculum to create effective thinkers in math. For example, students are expected to create and use representations to organize, record, and communicate mathematical ideas. Students are also expected to connect and communicate their mathematical ideas.

The materials include a description of how the 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, and teachers can 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. After the list, process standards are listed, and examples are provided. For example, in the lesson "Compare and Order Numbers," examples of TEKS 2.1D show examples of how students can use base ten blocks to construct a model and compare 253 and 223.

The "Content Support" tab for educators explains the purpose of lesson components that integrate the process standards into daily practice. In the "Content Support" page in each grade level scope, there is a section titled, "Applying Mathematical Process Standards," where educators can integrate the standards to reinforce students' problem-solving, reasoning, and communication skills. For example, some of these process standards include: "sort information into categories," and "Create a picture/bar graph using data."

The materials include support for students to use mathematical process standards to acquire and demonstrate mathematical understanding. For example, lesson "Multiply and Divide," under "Key Concepts," provides process standards students can use in the lesson. Some of these process standards used to multiply and divide 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 joined.

## 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
—	<b>TOTAL</b>	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 are asked to sort three-dimensional shapes and discuss questions, such as "How did you sort the solids?" and "What attributes does this group of 3-D solids have in common?" Students engage in mathematical thinking and work through solving the problems.

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 think mathematically to understand that fourths can be created by cutting an item in half and then cutting each half in half again. Students create a pictorial model of eighths, drawing a candy bar vertically into eight small rectangles, and they design a horizontal candy bar into eight equal-sized triangles.

The materials include student journals that allow students to document their problem-solving processes, strategies, mistakes, and revisions over time. These guided journals allow students to think mathematically, persevere through solving problems, and make sense of mathematics. For example, students use spelling bee scorecards with names and numbers of words students spelled correctly. Students use the student journals to compare two numbers by creating base ten block models and comparing. The teacher extends the students' mathematical thinking by asking questions such as, "How could a number line help you compare the numbers? If you had a number line with ends marked 0 and 1000, where would you plot these numbers on the number line?" Through these questions, the teacher is helping the student make sense of how the concrete model can now be related to which end of the number line the number would be and why.

### **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 solve tasks by sorting and organizing shapes in different ways. Students sort shapes and discuss questions such as "Is there another way you could sort these solids?" Students are encouraged to sort in another way and justify their answers.

The materials include a variety of approaches to convey knowledge, strategies, justifications, and conclusions. Students add two-digit numbers and solve these using multiple ways, such as using mental math or using base ten blocks. Students have the opportunity to explain ways they solved their tasks by answering questions from the teacher, such as "Which strategy did you find yourself using more? What different strategies could you use to solve similar problems to those in this activity?"

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 generate and solve problems given a number sentence involving addition and subtraction. Students may begin to solve the problem by using a Part-Part-Whole model. To understand that there are various ways to solve math problems and develop flexibility in math thinking, they can solve the same problem(s) using number lines and number bonds. The teacher may ask students which method they feel was most effective for them to solve the problem(s).

### **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. The materials are designed to require students to engage in writing prompts that address a variety of concepts and mathematical relationships. For example, students work in groups and use manipulatives to solve addition problems. The teacher uses guiding questions to foster a discussion. Students will then write a number sentence to find the sum of each problem. Finally, students draw a pictorial model for each problem.

The materials include opportunities for students to do and discuss math with their peers and/or educators. Students do math with peers by the teacher asking them to turn and talk about how they would solve (divide) using 27 beads to make three bracelets. Students then use their handout to draw a

pictorial model and then write to explain their thinking about dividing 27 by three. The lesson concludes with the teacher asking questions to check for understanding.

The materials include the "Procedure and Facilitation Points" section, and students are encouraged to work with their partners while doing and discussing mathematical concepts. For example, students work in groups to explore examples of lending benefits and costs. Students discuss math with their peers by using task cards and discussing the benefits and costs of lending. The teacher monitors student conversations and interjects with guiding questions, as needed.

## 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 work in groups to construct representation models of amounts. Students use base ten blocks to construct structures using the value of numbers (i.e., 1,029, 958, 1,162, etc.). As students construct their structures, they explain the value of the blocks, such as a cube has a value of 1000, a flat has a value of 100, etc. During construction, students may argue which blocks will create the best structure. Students may justify why they chose certain blocks to make their model structurally sound.

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, the teacher asks students to reflect on what they know about how to find the area of rectangles based on prior lessons. Students explain math formulas that can be used to find the area. Students use tiles to model rectangles with different areas. The teacher asks students to justify why it is important to lay tiles flat and not on top of each other or stacked in order to find the area. If an area model does not match the size noted on the sorting cards, the teacher is guided to ask questions to help them identify their mistakes.

Another example, students engage in the task by turning and talking to share how they would solve the problems on a number line. After the students share and reflect on their problem-solving strategies, they are expected to solve the problems with manipulatives. Students are then asked the following questions to discuss with the whole group: "What numbers should we place on the open number line before we begin placing the numbers from the math situation?"

## **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. Educators are provided with "Content Support" for each scope that lists the misconceptions and obstacles students may encounter and how to support them should these problems arise. For example, students use a string of yarn as a number line, and number cards; students place them in order based on place value. If students do not place the cards in the correct order, the teacher may prompt the student and ask them, "What is the smallest/largest number card? Which benchmark should it be placed closest to?" The teacher is guided to identify student misconceptions by checking to see whether students understand how numbers are ordered on number lines.

The materials include the "Instructional Supports" section at the grade level; explore gives educators extra guidance to ensure students are understanding the concepts. For example, teachers are guided with suggested questions to ask students when dividing. Possible student responses to the questions are provided to the teacher in red print. The teacher is also guided to monitor and guide students to check for understanding. Teacher questions are provided for the teacher's use during the checking for understanding.

The materials include prompts and guidance for educators to provide feedback to students. Teachers are provided guidance to use guiding questions to check for understanding throughout the Explore activities. For example, in the "Explore 1" activity, the facilitation points state "Remind them that the market sells vegetables in groups of 10 or individually. Students should count groups of tens and ones of both types of vegetables in the baskets. They can use the "Place Value Chart" to help them organize their counting into tens and ones and then find the total of each group." Teachers, "Monitor and talk with students as needed to check for understanding by using the following guiding questions: "Which way of counting was faster? Did grouping the vegetables by 10 before counting help you? What operation could be used to solve this problem?" These discussions allow the teacher to provide feedback for anticipated misconceptions.