

Accelerate Learning Inc.

Supplemental English Mathematics, K

STEMscopes Texas Math Pulse–Kindergarten English

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Supplemental	9798330804832	Digital	Static

Rating Overview

TEKS SCORE	TEKS BREAKOUTS ATTEMPTED	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	127	2	Flags Addressed	Not Applicable	0

Quality Rubric Section

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

Breakdown by Suitability Noncompliance and Excellence Categories

SUITABILITY NONCOMPLIANCE FLAGS BY CATEGORY	IMRA REVIEWERS	PUBLIC	Flags NOT Addressed by November Vote
1. Prohibition on Common Core	0	0	0
2. Alignment with Public Education's Constitutional Goal	0	0	0
3. Parental Rights and Responsibilities	0	0	0
4. Prohibition on Forced Political Activity	0	0	0
5. Protecting Children's Innocence	0	0	0
6. Promoting Sexual Risk Avoidance	0	0	0
7. Compliance with the Children's Internet Protection Act (CIPA)	1	0	0

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

IMRA Quality Report

1. Intentional Instructional Design

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

1.1 Course-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.1a	All criteria for guidance met.	5/5
1.1b	All criteria for guidance met.	3/3
1.1c	All criteria for guidance met.	2/2
1.1d	All criteria for guidance met.	2/2
1.1e	All criteria for guidance met.	2/2
—	TOTAL	14/14

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

The "Kindergarten Scope and Sequence" table includes five sections: Scope Name, TEKS covered, Explores, Included Standards, and Total Instructional Days. The Scope Name section provides the overall concept covered, and the Explores section breaks down each concept into smaller topics. There are 13 Scope Name concepts in the Scope and Sequence, and three ongoing concepts at the bottom. The ongoing concepts include Daily Numeracy, Fact Fluency: Addition and Subtraction, and Data Science.

The "Grade K Course Rationale" summarizes each unit and how it connects to previous and future scope materials. For example, the "Personal Financial Literacy" scope extends the concept of money to understanding income, distinguishing between wants and needs, and recognizing the value of work.

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

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

The materials include an *Implementation Guide*, which provides just-in-time supports, such as individualized instruction and assessment. The *Implementation Guide* states, "Another key feature in our curriculum is that both intervention and extension (acceleration) activities are provided. The teacher can individualize their plans by using the *Scaffolded Instruction Guide* located in each scope to guide instruction based on student data." The *Implementation Guide* also includes an "Intervention" section,

which provides the tools teachers can use to support students needing intervention, including supplemental aids, check-up, and small group intervention. The Acceleration section provides tools such as "Math Today!" and "Create Your Own."

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

The *Scaffolded Instruction Guide* provides a table of tiered activities based on MAP (measures of academic performance (assessments provided by NWEA [formerly the Northwest Evaluation Association]) assessment or scope assessment data. The table includes four percentile ranges for every TEKS statement within the unit and provides activities based on level. For example, the Three-Dimensional Solids Scope provides these four levels: "0–25 percent (Previous Grade Level Remediation)," "25–50 percent (Grade Level with Supports)," "50–80 percent (Grade Level)," and "80–100 percent (Extending Grade Level)." Each percentile range includes embedded links to activities and strategies, including manipulative practice, interactive games, hands-on activities, and small group instruction.

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

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

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

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

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

The *Implementation Guide* includes information for administration and instructional coaches related to scope and sequence documents, suggested scope calendars, various instructional calendar options,

planning guides, and teacher preparation and planning guides. For example, the Scope and Sequence document provides the TEKS, instructional days, "Mathematical Process Standards," English Language Proficiency Standards (ELPS), and "explores" covered in each scope.

1.2 Lesson-Level Design

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

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

The materials provide detailed lesson plans aligned with the 5E instructional model, including learning objectives, teacher and student resources, instructional steps, questioning strategies, and language supports. For example, in the Kindergarten Scope Measurement, Day 1 of the Suggested Scope Calendar states, "Objective: Students are introduced to an activity where they compare two containers that can be measured for capacity to determine which has the greater capacity. Students will revisit the activity after the corresponding Explorers have been completed." Under the Explore tab, "Language Supports" are provided at the bottom of the page. Examples include "Discuss what it means for an object to be measurable vs. nonmeasurable," "define the word attributes," "create space for students to become familiar with the words used," and "sentence stems for students." These supports align with the following ELPS: 1ACFH, 2.c, 3.ABCDFH, 4. ACDF.

Each 5E lesson tab contains detailed plans, including: aligned materials for both teacher and students, instructional steps, guided questioning with sample answers, and instructional and language supports. For example, in kindergarten, in Unit Measurement, Explore, list printed materials for students, and list what the teacher needs to prepare before the lesson starts. "To complete this activity, plan to divide students into 5 groups. Gather the various suggested lists of materials from above." In the Kindergarten Scope Count Objects, the explore lesson "Count Objects to 10" provides process standards, materials needed, preparation needed, procedures, facilitation points, depth of knowledge (DOK) questioning, exit tickets, instructional support, and language support. Within the Evaluate tab in each scope, there are selections for Observational Checklist and a Skills Quiz to allow the teacher to evaluate student understanding.

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

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

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

Within each scope, the materials include a take-home letter in English and Spanish with an overview of the scope, vocabulary, and at-home activities to reinforce learning. For example, the Take-Home Letter for Scope K.6BCE includes a Tic-Tac-Toe: Try This at Home game, which includes activities such as a 3-D scavenger hunt and Build It activities.

The Take-Home Letter under the "Home" section in the kindergarten "Counting Objects to 10" scope provides guardians with background information, strategies for counting to 10, and sample problems. It includes a tic-tac-toe game featuring real-world counting activities. Both the letter and the games are available in English and Spanish.

2. Progress Monitoring

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

2.1 Instructional Assessments

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

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

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

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

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

The materials include guidance to ensure consistent administration of instructional assessments by providing "Procedure and Facilitation Points" for each assessment within the scope. For example, in Scope K.9ABCD, Personal Financial Literacy, the "Procedure and Facilitation Points" for the Skills Quiz include: "1. Distribute the Student Handout to each student. 2. Prompt students to show what they know in completing the assessment. 3. Allow students to reflect on their performances using the Heat Map. 4. Once student data has been collected after the assessment, refer to the *Scaffolded Instruction Guide* in the Home section of this scope to differentiate instruction for each student."

The materials provide scripts to ensure consistent administration of instructional assessments. For example, in kindergarten, "Personal Financial Literacy" under the "Acceleration" tab, the assessment "Math-Today- Westminster Dog Show" includes "Procedure and Facilitation Points" that state, "1. Allow students to view the video. Briefly explain that there is a very famous dog show where adults and children can bring their dogs to show them and hopefully win some money. 2. Discuss: a. What do you wonder when watching this dog show? (Answers will vary; for example, how long does it take to train a dog for the show?) b. Where do you see math might be used in this video? (Answers will vary; for example, counting the number of dogs in the show, putting the dogs in order.) 3. Students should complete the Student Handout independently or with partners." The "Answer Key" has the teacher's answers for the Student Handout.

The Skills Quiz is "A standards-based assessment to determine the student's ability to solve mathematical problems efficiently and accurately." The Skills Quiz measures what it is designed to measure and is an accurate assessment. For example, in the Kindergarten Skills Quiz K.4A, Money, students are prompted to match pictures of coins to their names. Students are expected to recognize and name coins by looking at heads and tails.

2.1c – Digital assessments include printable versions and accommodations, including text-to-speech, content and language supports, and calculators, that educators can enable or disable to support individual students.

The materials provide digital and print versions of assessments. For example, in Scope K.2BC, exit tickets, checklists, Student Journals, and the Skills Quiz can be administered as "Editable Google Files" or "Print Files."

When assigning a "New Assignment," teachers can assign a calculator for student use. The materials provide three types of calculators to assign: a four-function calculator, a scientific calculator, and a graphing calculator.

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

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

Materials include diagnostic assessments with TEKS-aligned tasks or questions with varying complexity levels, by providing one growth measure pre-assessment and one growth measure post-assessment. These diagnostic or summative package assessments offer multiple questions, and each question is aligned to the TEKS. Within the Kindergarten Growth Measure, pre-assessment questions include multiple levels of complexity. For example, students are introduced to recall-level questions such as "Which number comes after 3" and " $1 + 2 = \underline{\quad}$ ", application-level questions such as "Maria bought 3

muffins. Jill bought 2 muffins. How many total muffins did Maria and Jill buy," and higher-order thinking questions such as "The number sentence shows a total of 6. $2 + 4 = 6$. Which is another way to show a total of 6?" The question types include multiple-choice questions. Tasks prompt students to count numbers in a set and identify the correct numeral, choose the correct set to match a numeral, choose a set with a number more, less, or equal to the number of the original set, determine a set that correctly represents an addition or subtraction model, and use a set of objects to create an equation.

The materials include an observation checklist as a diagnostic assessment for each scope. The observation checklist provides interactive item-type questions and tasks. For example, in Scope K.3ABC, the checklist includes opportunities for students to "Model the action of joining to represent addition and the action of separating to represent subtraction" through "Physical modeling, Pictorial modeling, Problem solving, Discussion, and Written explanation."

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

Materials include multiple, TEKS-aligned formative assessment options within each scope that include, but are not limited to, exit tickets, observation checklists, and Skills Quizzes. In Scope K.8ABC, the Skills Quiz contains questions with varying levels of complexity, including sorting data, labeling data, drawing conclusions from the data, and then justifying responses based on the data. For example, Question 3 asks students to look at a picture graph and determine their favorite food. Question 4 asks students how many kids like burgers and pizza. Question 5 asks students, "How do you know many kids like burgers and pizza?" Within the Skills Quiz, there are opportunities for students to sort data via drawing, insert their data into a chart, and type equations. In the kindergarten "Fact Fluency Unit," under "Plus 0, 1, 2," the "Fact Fluency-Plus 0, 1, 2 Assessment" is an interactive digital assessment that has students demonstrating their understanding of adding "0, 1, and 2." The questions vary in complexity; for example, questions such as " $0+10=$," " $13+1=$," and " $__=2+5$." The questions have students demonstrate their understanding that adding zero does not change the number. The same unit under "Doubles" includes a "Fact Fluency-Doubles Assessment" that includes an interactive digital assessment that has students demonstrate their understanding of adding a number to itself. For example, " $9+9=$," " $5+5=$," and " $__=10+10$."

Materials include a variety of formative assessments with TEKS-aligned tasks or questions, as well as interactive types of questions or tasks. Multiple formative assessment options are available within each scope, including, but not limited to, exit tickets, observation checklists, Skills Quizzes, and extension activities. For example, in Scope K.2BC, the exit tickets for each Explore lesson progress through varying levels of complexity. In the exit ticket for Explore 1, students are expected to count objects and write the numeral. In the exit ticket for Explore 2, students are expected to count objects, write the numeral, and draw a set of objects to represent a given numeral. In the exit ticket for Explore 3, students are expected to color objects to represent a set for a given number. In the exit ticket for Explore 4, students are expected to draw a set of circles to represent a numeral and complete a set of three sentence frames

describing the total number within the set and how to compose and decompose it. For example, the Explore 4 exit ticket sentence frames are "There are _____ cupcakes in this order. 10 and _____ equals _____. _____ is the same as 10 and _____."

2.2 Data Analysis and Progress Monitoring

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

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

The materials provide answer keys for each assessment, which provide scoring information and guidance for interpreting student performance. For example, in scope K–2I, the materials provide an answer key for each exit ticket. Each answer key shows what you know, the spiraled review, the intervention checkup, acceleration, and the skills assessment. A rationale for correct and incorrect responses is not included in the materials.

The materials provide the teacher with scoring information within the answer key. For example, the elaborate tab in the "Spiraled Review—The Airplane Trip" provides answers for the questions. Question one states, "Count the number of planes Colby saw before he boarded his plane." The materials indicate the answer is 13. In the same unit, under the intervention tab, the lesson provides an answer key for the student checkup. The first question instructs students to "sort the solids into two groups." The answer key labels the groups "these solids roll" and "these solids slide." The materials do not provide a rationale for correct and incorrect responses.

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

The materials provide multiple opportunities to respond to student understanding throughout the scope, such as exit tickets and "Show What You Know." For example, Scope K.6ADEF, "Show What You Know - Part 1: Sort 2D Shapes" asks students to sort two-dimensional shapes into two categories of their choosing. The "Procedure and Facilitation Points" state that, "This element can be used to assess whether intervention is needed for each student."

The materials provide intervention lessons with targeted strategies aligned to each lesson within the scope. For example, in Scope K.2ABC, K.5A, the lessons included are "Count Objects within 10, Count Objects and Organize Counts, Count Forward and Backward within 10, and Count Forward and Backward

within 20." After each lesson, the "Show What You Know" element can be used to assess whether intervention is needed for each student. The intervention lessons within the scope align with each lesson. For example, Intervention Part I is titled "Count Objects within 10," Part II is titled "Count Objects and Organize Counts," Part III is titled "Count Forward and Backward within 10," and Part IV is titled "Count Forward and Backward within 20." Step-by-step instructions for the lessons are included in each part.

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

The materials provide observation checklists for teachers to track student progress and growth in each scope. For example, Scope K–2BC provides a checklist of each standard covered within the scope. At the end of the checklist, reflection questions help teachers track overall mastery. The questions state: "Is this student proficient in the skills addressed in this scope? If so, what is next for them? If not, how can I support them?"

The material provides a Heat Map for students to track their progress and growth on grade-level standards. For example, students are instructed to color-code their correct answers green and incorrect answers red. Students are then directed to reflect on their data and answer the questions: "I think I did well on-" and "I need to work on-." The Benchmark Assessment includes the STEMscopes Texas Math Kindergarten Growth Measurement Pre-Assessment; these assessments are designed to track growth from the beginning to the end of the year. This assessment includes a Heat Map for students to color code to indicate correct and incorrect questions. The questions are aligned with the standard; students can see what they did well and what they need to work on.

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 prompt teachers to check for understanding throughout lessons and activities. For example, in Scope K.2EFGH, each Explore lesson has embedded DOK questions for teachers to ask at different points. Explore 2 has prompts and questions such as, "Monitor and talk with students as needed to check for understanding by asking the following guiding questions: DOK-1 How many students were on the bus when the field trip started? Answers will vary: 14."

The materials provide guidance to support teachers in conducting checks for understanding throughout lessons and activities. For example, in Scope K.4A, the teacher guidance states, "During group work, actively monitor to make sure that all students are having a turn to talk about the coins. Provide some sentence structures as needed: 'The coins are _____ in this group.' 'I sorted by _____. 'I notice these coins are all _____.'"

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

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

3. Supports for All Learners

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

3.1 Differentiation and Scaffolds

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.1a	All criteria for guidance met.	1/1
3.1b	All criteria for guidance met.	4/4
3.1c	All criteria for guidance met.	2/2
3.1d	The materials do not allow teachers to enable and disable accommodations, such as text-to-speech, content, and language supports, for individual students.	1/3
3.1e	All criteria for guidance met.	2/2
—	TOTAL	10/12

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

The materials provide explicit, data-driven support within the *Scaffolded Instruction Guide* for students who have not yet reached proficiency. Based on Scope or MAP assessment data, students are grouped into four quintiles with targeted instructional recommendations. For example, in Scope K.2ABC, K.5A, the *Scaffolded Instruction Guide* provides a framework for intervention for students within Previous Grade Level Remediation (0–25 percent) and states the following skills to practice: "Using a number path and small manipulative, have students place one object at a time on the number path while counting forwards and backwards within 20," and "Using a number path, have students point and count forwards and backwards within 20."

The materials provide the teacher within each scope a *Scaffolded Instruction Guide* that gives entry points into the lesson for each level of student understanding based on data from the Quintile Assessment, Heat Map, or MAP Growth Assessment for each TEK in the scope. For example, in "Join and Separate" for TEK K.3A Model, the action of joining to represent addition and the action of separating to represent subtraction, students in the 0–25 percentile receive small-group intervention.

3.1b – Materials include explicit educator guidance for language supports, including pre-teaching and embedded supports for developing academic vocabulary and unfamiliar references in text.

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

during lessons, including discussion questions and ELPS-aligned strategies. Each Explore ends with language supports to reinforce vocabulary connections.

The materials provide embedded language supports in each Explore lesson, including vocabulary guidance, real-world context support, and structured conversation tools. For example, in Scope K.2DEFGH, teachers receive suggestions for using visual examples to reinforce terms like "more than" and "less than." Supports also include background-building strategies, such as showing clips or real items (e.g., s'mores ingredients), and sentence frames to guide structured student discussions.

3.1c – Materials include explicit educator guidance for enrichment and extension activities for students who have demonstrated proficiency in grade-level and above grade-level content and skills.

The materials include a *Scaffolded Instruction Guide* in the Home tab of each scope, offering explicit guidance for enrichment and extension based on student data. For example, in the "Join and Separate" scope, students scoring 80–100 percent on the Scope Assessment are directed to a "Math Today—LEGO Light Bulb" activity that extends learning through real-world addition and subtraction stories.

The materials provide explicit educator guidance for enrichment for students who have demonstrated proficiency in grade-level content and skills. For example, in Scope K.7AB, the teacher guidance states, "As an extension, have students trace their own foot and compare it to the evidence footprint. Would it be possible for one of the students in the classroom to be a suspect as well? Students can also compare their footprint with other students in the class."

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

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

The digital version of the Skills Quiz allows students to use the toolbar at the top of the screen to turn on the dictionary function, enable text-to-speech, highlight text, and change the font size. Teachers can only turn on and off the calculator function. For example, in Scope K.3ABC, the teacher can assign the Skills Quiz and has the option to assign a calculator. Text-to-speech, font size, and online dictionaries are embedded within the assignment.

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

The materials provide opportunities for students to demonstrate understanding of mathematical concepts in various ways. For example, in Scope K–2I, students demonstrate their understanding of composing and decomposing numbers with manipulatives (linking cubes), verbal explanations, coloring, and writing. The materials provide the teacher with support to model each step for the students. For example, the lesson states, "Call on a pair of students to share one of their combinations. Project the Student Journal on the board. Model for students using two different colors of crayons to compose/decompose the number six on the Student Journal. Additionally, read and complete the sentence below the first set of cubes."

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

3.2 Instructional Methods

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

3.2a – Materials include explicit (direct) prompts and guidance for educators to build knowledge by activating prior knowledge, anchoring big ideas, and highlighting and connecting key patterns, features, and relationships through multiple means of representation.

The materials provide explicit prompts and guidance for educators to build prior knowledge. For example, in Scope K.7AB, the lesson provides the following prompts for a lesson on capacity: "Help students access the task by asking the following guiding questions: 'What do you know about measuring capacity or how much an object can hold?' 'Have you ever gone with an adult to run errands?' 'What kinds of errands can you go on?' 'Can you recall a time you have been to or run a lemonade stand?'"

The materials include explicit prompts and guidance for educators to anchor big ideas and highlight key patterns, features, and relationships through multiple means of representation. The materials begin each lesson with a phenomena-based activity. For example, in Scope K.2EFGH, the featured phenomenon is an arcade wheel. Students watch a video and respond to questions related to the context of comparing numbers. The lesson prompts: "Show the Phenomena. Ask students: 'What do you notice?' 'Where do you see math in this situation?' Allow students to share all ideas." The scenario presents a real-world context where students compare quantities to determine who earned the most tickets, encouraging them to use mathematical reasoning to justify their answer. At the end of the unit, students apply their knowledge of comparing numbers using multiple representations: "Have students use linking cubes to model and compare the numbers. Then, using the Student Handout, they will write the number of tickets in the sentence frames and color the correct amount for each."

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

The materials offer varied instructional approaches, including collaboration, structured conversation, and direct instruction. In Scope K–6BCE, students sort shapes in small groups and engage in structured discussion using the prompt: "Choose a 'Structured Conversation Routine' to facilitate the following question (DOK-2): 'What do shapes A and H have in common?' 'How are they different?'" For students

needing support, intervention lessons include direct instruction. For example, in Part II of the Small-Group Intervention, the teacher guides students to press the top and bottom of a cylinder into modeling clay and asks: "'What do you notice? (e.g., it makes two circles.)' 'What 2-D shapes are part of the cylinder?'"

In the materials, the suggested scope calendar offers clear daily guidance for effective lesson delivery. Teachers begin with a 5–10-minute warm-up using Daily Numeracy, Fact Fluency: Addition and Subtraction, and Data Science. Day 1 includes Whole Group instruction (Hook Part 1: Pre-Explore), Small Group time (30–45 minutes) with "Fluency Builder," Interactive and Independent Practice from prior scopes, and Guided Practice using Foundation Builder. Ten "Structured Conversation Routines" are provided for assessment, each with detailed implementation guidance.

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

The materials provide small-group, collaborative, and individual opportunities in the intervention lessons. For example, in Scope K–6ADEF, the Intervention lessons include guided, collaborative, and independent practice in addition to instruction within small group, partner, and individual settings. The materials guide teachers to engage students in hands-on, collaborative learning using attribute blocks. Students first work together to sort shapes into groups based on their own observations. In the next part, each student receives a circle, triangle, square, and rectangle to examine and discuss their attributes, with guiding questions such as, "What do you notice about the circle?" In the final part, students create shapes using chenille stems and clay, then discuss the attributes of each shape. After each activity, students complete an individual checkup to assess understanding.

The materials provide a suggested scope calendar that includes various types of practice for intervention methods. In the kindergarten scope, "Compose and Decompose Numbers to 10," the Suggested Scope Calendar includes opportunities for small-group instruction. For example, day-one guidance recommends 30–45 minutes of small-group time with activities such as Independent Practice (from a previous scope or grade level), "Fluency Builder," and Interactive Practice. Teachers also have access to targeted intervention lessons that provide additional practice and include tools like a Teacher Checklist and a checkup assessment. To support differentiated instruction, the scope offers a *Scaffolded Instruction Guide* that helps teachers determine next steps based on student performance. The guidance instructs educators to analyze assessment data from the online platform or a student's Heat Map to determine their percentile ranges by standard. Refer to the corresponding tables to find instructional materials matched to each range, and use the provided links to access targeted resources and customize instruction based on student needs.

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

The "Acceleration" tab of the materials found in the scope provides guidance for engaging students in enrichment and extension activities. For example, in Scope K–4A, the "Acceleration" tab provides a real-world scenario for students to explore. Students will look at a photograph and work with a partner or group to answer related questions. The teacher guidance states, "Give each student a copy of the Student Handout and read the caption together while observing the picture. Ask, 'What do you wonder about a Rubik's Cube?' (e.g., how to solve it, how it moves, or how math is used in competitions)." Discuss possible math connections, such as counting competitors, totaling solve times, or comparing speeds. Students then complete the handout independently or with a partner.

In the kindergarten scope, Compose and Decompose Numbers to 10, the "Acceleration" tab features a "Math Today" activity titled "Hot-Air Balloon Fiesta." This activity engages students with real-world media from the Associated Press, encouraging them to make cross-curricular connections. The teacher facilitates a discussion using questions such as, "What do you wonder when watching these balloons?" and "Where might math be used at the Balloon Fiesta?" Students then solve four related problems and decompose the number 6 using a graphic organizer different from those used in previous lessons.

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

The Explore lessons include several DOK-level questions with sample student responses to guide teacher facilitation. After completing the Student Journal page, teachers are prompted to ask students to share their strategies, question one another, and identify similarities and differences. The lesson then transitions into a "Math Chat", with leveled questions and modeled responses. Students complete an exit ticket to demonstrate understanding, and instructional support offers strategies throughout. For example: "Encourage students to be more efficient in their strategies. If they clear their Cupcake Story Mat each time, ask, 'What might happen if you just trade one red cupcake for a blue one?'"

The materials provide guidance to support educators in providing feedback within the lesson. For example, in the Explore lessons in Scope K–7AB, the materials provide guidance, such as "Monitor and talk with students as needed to check for understanding by using the following guiding questions: DOK-1 'What attribute of these cups are you measuring?'"

3.3 Support for Emergent Bilingual Students

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

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

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

The materials provide instruction for teachers to offer language support for students at varying levels of linguistic ability. For example, in Scope K–2I, Explores 1 and 2 align with ELPS 2.C by encouraging students to speak using a variety of language structures, sentence types, and connecting words. Educator guidance suggests providing examples of non-mathematical terms—such as duck, land, pond, and equal to—to help students engage with the task. For Spanish- or Portuguese-speaking students, the materials note the similarity between the term *igual* and the English word "equal" to support vocabulary development. Teachers are encouraged to have students explain their thinking to a partner and then share their partner's idea with the class. Sentence stems are provided to support oral language development, such as frames that guide students to describe steps taken and observations made. The materials also include teacher prompts that promote conversation by encouraging students to share strategies, ask questions of one another, and make connections. In addition, the materials outline proficiency-level descriptors that align with language development. At the pre-production level, emergent bilingual students may rely on nonverbal responses or gestures with significant teacher support. At the beginning level, students begin to speak using isolated mathematical words supported by visuals or gestures. Intermediate students use basic mathematical words or phrases, while high intermediate students begin to link ideas using connecting words and simple sentences. At the advanced level, students are expected to use complete sentences and precise mathematical language to describe mathematical relationships, explain problem-solving processes, and extend ideas or information.

The materials provide educator guidance on incorporating linguistic accommodations for all levels of language proficiency, helping students use increasingly academic language. For example, in the unit Represent Numbers to at Least 20, Explore 2 – Count Objects and Organize Counts, "Language Supports" are aligned with the ELPS (1.ACEFH, 2.ADGHI, 3.ABCDEFGH, 4.ABCDF). The unit also includes Picture Vocabulary to help students build academic language and connect it to their experiences. This resource is intended to be used alongside Explore activities. The "Tips and Tricks" section recommends downloading the Picture Vocabulary slides from the "Teacher Toolbox" to create personalized materials. Educators are encouraged to remove the pictures from the slides, print them, and allow students to add their own images—promoting ownership of learning. In the "Teacher Toolbox," the "Multilingual Learners" section under "Linguistic Diversity" includes the "Proficiency Levels by Domain" resource. This provides an overview of how students use language across listening, speaking, reading, and writing, along with tools and strategies for support. Guidance is organized by proficiency level—Beginner, Intermediate, and Advanced—to ensure appropriate scaffolding is in place.

3.3b – If designed to be adaptive, materials include embedded linguistic accommodations for all levels of language proficiency [as defined by the English Language Proficiency Standards (ELPS)], which are designed to engage students in using increasingly more academic language.

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

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

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

In the "Teacher Toolbox" within each grade-level scope, the "Multilingual Learners" tab provides generalized information on "Language Acquisition Progression" for teacher background knowledge. Below the "Language Acquisition Progression" is a list of Resources and Tools that shows where the "integrated resources" can be found within the scopes. The first section gives a chart for "Proficiency Levels by Domain." The chart provides examples of what "Beginner Level, Intermediate Level, and Advanced Level" students are able to do given proper scaffolding. Within this section, there is a file for "Sentence Stems" that provides sentence stems for explaining, agreeing, disagreeing, clarifying, and

adding on. For example, "I can visualize this problem by..." and "My answer is reasonable because..." The document points out the "Integrated Accessibility Features" by stating, "Across the curriculum, we have embedded tools that allow students to listen to the text being read, find the definition of words at the moment, make notes, and highlight words and phrases." The other highlighted areas include "Language Connections," "Virtual Manipulatives," "Virtual Learning Videos," "My Math Thoughts/Math Story," "Problem-Based Task/Mathematical Modeling Task," and "Structured Conversation Routines."

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

The materials provide opportunities within each scope for students to engage in structured, routine oral discussions of academic vocabulary. For example, in Scope K.7AB, students are introduced to the vocabulary words, and the teacher guidance for the structured conversation states, "Project the Slideshow for the class. Read words and/or definitions with students. Discuss words or definitions that are unfamiliar to students. Discuss the following questions: 'How can you connect this word to your work in the Explore?' 'How would you rephrase the definition in your own words?' 'What do you picture in your mind when you hear this word?'" In Explore 1, the teacher guidance also provides explicit cross-linguistic connections for the educator to provide for Portuguese- and Spanish-speaking students. It states, "Create space for students to become familiar with the words used to describe different attributes such as length, weight, and capacity. Create an anchor chart of the words students may use to describe and categorize the objects, and record the translated versions of the words in the student's home language." Other opportunities for academic discourse include "Math Chats" and group work during the lesson. For example, in Explore 1, the teacher guidance during the lesson states, "Monitor and talk with students as needed to check for understanding by using the following guiding questions: 'What are some attributes you observe about this item?' 'Are all of those attributes measurable?' 'What do you think makes an attribute measurable?' 'What do you think makes an attribute nonmeasurable?'"

The 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. In the Personal Financial Literacy unit, the Hook activity "My Birthday Wish List in Part I: Pre-Explore" encourages students to share personal experiences through questions, such as, "Have you had a birthday party? What birthday gifts have you given to someone?" Materials also include prompts like "What information do we know? What information do we need to find out?" In Part II: Post-Explore, students discuss wants and needs and categorize them on a Needs vs. Wants T-chart, deciding whether they agree with the placement of each item. Under the Explain tab, the Picture Vocabulary section helps students build academic language by connecting terms to their experiences, with guiding questions that prompt them to rephrase definitions and visualize the words. In Explore 3: Job Skills, students use Job Title Cards to complete a journal activity where they list three skills needed for a job and draw a picture of someone performing it, reinforcing vocabulary through writing and illustration.

3.3e – If designed for dual language immersion (DLI) programs, materials include resources that outline opportunities to address metalinguistic transfer from English to the partner language.

This guidance is not applicable because the program is not designed for dual language immersion (DLI) programs.

4. Depth and Coherence of Key Concepts

Materials are designed to meet the rigor of the standards while connecting concepts within and across grade levels/courses.

4.1 Depth of Key Concepts

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.1a	All criteria for guidance met.	2/2
4.1b	All criteria for guidance met.	4/4
—	TOTAL	6/6

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

In the "Count Objects" scope, Explore 2 – "Count Objects and Organize Counts" section, students engage in an activity where they draw a circle for each object they count, circle the strategy they used, and complete a fill-in-the-blank sentence stem that includes, "I counted ____ objects." The same lesson consists of an exit ticket where students count objects by circling groups of bears, using ten frames, and a counting strip.

Scope K.2DEFGH includes opportunities for students to practice using manipulatives and pictures. For example, in the section Accessing Prior Knowledge, students use cards with images of different quantities and arrangements to determine the larger set. In Explore 1, students compare sets of marshmallows on sticks. They build a model using chenille stems and linking cubes. In Explore 2, students compare the number of small and large delivery boxes by building models with centimeter cubes and linking cubes. Each lesson includes an example of a real-life scenario for the covered skill. Assessment opportunities include show and tell with structured and unstructured arrangements of sets, building sets with more or less, and making statements comparing numerals.

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

In Scope K.3ABC, students are introduced to addition and subtraction within 10. Explore 1 allows students to solve word problems with pictures and manipulatives to represent the problem. Questions in the "Math Chat" begin with DOK-1 and move to DOK-4, covering all levels of complexity. Explore 2 provides the "Part-Part-Whole" model for students to represent addition and subtraction. The "Math Chat" contains DOK-2 to DOK-4 questions. Explore 4 focuses on explaining addition and subtraction strategies. Students answer questions such as, "Can you explain how you solved the problem?" and "What strategy helped you the most, and why?" to explain their thinking. In "Elaborate," the students are

given a choice of games, including a matching game, "Go Fish!," and "4 in a Row," which provide students the opportunities to practice matching pictorial models with addition and subtraction problems.

The scope "Acceleration" section provides extension and enrichment opportunities. The acceleration activities in Scope K.3ABC increase in rigor and complexity. Students engage in a real-world scenario about a light bulb made from Legos. After students watch a video, they answer addition and subtraction questions related to the video. Each Explore section includes extension questions and tasks, such as "As a challenge, have students come up with their own problems using their Panda Bear Story Mats. Have their partners act it out to solve it."

4.2 Coherence of Key Concepts

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

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

The materials provide a horizontal layout that builds on previous scopes within the grade level. For example, the first scope is K.2ABC, K5A: Count Objects. In this scope, "Students count various collections of objects up to 10. They demonstrate that the last number said is the number of objects in the set." The fifth scope is Scope K.2BC: Represent Numbers to at Least 20. In the first Explore lesson, the teacher asks, "Help students access the task by asking the following guiding questions: What do you remember about counting objects?" Scope six, K.2EFGH, Compare Numbers to 20, uses counting skills from other scopes. For example, in Explore 1, the "Math Chat" provides questions involving counting, such as "DOK-2 How did you know how many pepperonis to put on each pizza? I looked at the number and then counted that many circles."

The materials provide a "Course Rationale" describing the connection between scopes within the kindergarten curriculum. For example, the "Grade K Course Rationale" states, "Each scope in Grade K 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. Each scope builds on the last, ensuring students develop a robust and interconnected understanding of mathematics from the start. The journey through the scopes of STEMscopes Math reflects a deliberate progression from foundational numeracy and geometric concepts to more complex mathematical thinking and real-world applications."

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

The materials provide a vertical alignment overview within each scope. For example, in Scope K.6ADEF, the "Coming Attractions" section within "Content Support" provides the following vertical alignment overview: "Students continue to build on this concept as they extend their understanding of two-dimensional shapes. In first grade, students identify other two-dimensional shapes, such as rhombuses and hexagons, and describe their attributes using formal geometric language. The students compose two-dimensional shapes by joining up to four figures to produce target shapes in more than one way. In second grade, students classify and sort polygons with 12 or fewer sides. The students compose and

decompose two-dimensional shapes when given attributes or properties. Third graders are introduced to quadrilaterals, parallelograms, and trapezoids. They classify and sort polygons into multiple categories based on attributes."

In the "Teacher Toolbox" under Curriculum Design, teachers can access the Texas Math TEKS K–3rd Grade Vertical Alignment Chart. The chart outlines the instructional focus, displays the process skills, and organizes the TEKS into strands. The accompanying guidance states, "Standards that are vertically aligned show what students learn in one grade level to prepare them for the next level. Texas Essential Knowledge and Skills (TEKS) are the state standards for each grade level."

4.2c – Materials demonstrate coherence across lessons or activities by connecting students' prior knowledge of concepts and procedures to the mathematical concepts to be learned in the current grade level and future grade levels.

The materials include prompts to connect concepts across lessons. For example, in Scope K.2I, students practice composing and decomposing the numbers 6, 7, 8, 9, and 10. In Explore 1, students define compose and decompose, then practice composing and decomposing 6 with objects and pictures. In Explore 2, the lesson begins with the question, "What do you remember about composing and decomposing 6 with objects or pictures?" This procedure is followed throughout Explores 3, 4, and 5.

Embedded teacher support states, "In first grade, students use concrete and pictorial models to compose and decompose numbers up to 120 in many ways. Second graders use concrete and pictorial models to compose and decompose numbers up to 1,200 in many ways. In third grade, students compose and decompose numbers up to 100,000 in many ways by using objects, pictorial models, and numbers, including expanded notation."

The materials include procedures that are consistent across lessons within a grade level and across multiple grade levels. For example, each Explore lesson contains a "Math Chat" where students are allowed to answer questions to explain or expand their thinking. In Scope K.8ABC, Explore 1 states, "After the Explore, invite the class to a 'Math Chat' to share their observations and learning." The "Math Chat" contains questions with varying levels of complexity for the teacher to ask and sample student answers. "Math Chats" are included in Explores for grades 1, 2, and 3. For example, the instructions for a grade 1 "Math Chat" in Scope 1.8ABC are "After the Explore, invite the class to a 'Math Chat' to share their observations and learning." In grade 2, Scope 2.10ABCD, the "Math Chat" instructions are "After the Explore, invite the class to a 'Math Chat' to share their observations and learning." In Grade 3, a "Math Chat" is introduced with these instructions: "After the Explore, invite the class to a 'Math Chat' to share their observations and learning."

4.3 Coherence and Variety of Practice

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

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

Each scope provides a "Spiraled Review" opportunity that revisits skills from prior scopes. For example, in Scope K.6BCE, Three-Dimensional Solids, the Spiraled Review offers questions about counting numbers, writing an addition number sentence, two-dimensional shapes, and comparing numbers. For example, question 1 asks students to "Count the number of planes Colby saw before he boarded his plane."

In the scope "Compose and Decompose Numbers to 10" under the Elaborate tab, the Spiraled Review—Birthday Party—allows revisiting key concepts and skills introduced in the initial scope, "Counting Objects." This spiral review reinforces number composition and decomposition while integrating ordinal numbers and shape recognition, supporting cumulative understanding across multiple math strands.

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

The materials provide interleaved practice opportunities for students to practice skills and concepts. For example, in Scope K.3ABC, students are introduced to addition and subtraction. Each Explore lesson introduces a different strategy to add and subtract. In Explore 1, students will use manipulatives and pictures to solve addition and subtraction word problems. In Explore 2, the "Part-Part-Whole" model is used to add and subtract. Pictures and manipulatives are used in conjunction with the "Part-Part-Whole" model. In Explore 3, "Part-Part-Whole" and manipulatives are used to provide more practice with addition and subtraction. Writing equations is introduced in this lesson. In Explore 4, oral and written explanations are used to explain the answer to addition and subtraction problems. Pictures, manipulatives, and equations are used to determine the answer to each question. These skills are later used in Scope K–2BC when teen numbers are decomposed into a sum of 10 and ones.

The materials provide interleaved practice opportunities for students to practice skills and concepts. For example, in Scope K.2DEFGH, students are introduced to comparing numbers to 10, and in Scope K.2EFGH, students are introduced to comparing numbers to 20. Within both scopes, students use manipulatives and pictures to help compare numbers. In Scope K.2DEFGH, Explore 3, the instructions state, "Explain that the students have linking cubes that represent the buildings on the City Blueprint. These serve the purpose of a concrete model. The concrete model of each building should match the pictorial model of each building on the City Blueprint. Each linking cube is equal to one story of the

building. Have students check their work using the linking cubes," and in Scope K.2EFGH, Explore 4, the instructions state, "Explain that students have the Apple Cutouts (or linking cubes) for concrete models. Have them check their work by matching the Apple Cutouts (or linking cubes)."

5. Balance of Conceptual and Procedural Understanding

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

5.1 Development of Conceptual Understanding

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

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

The materials provide opportunities for students to interpret, analyze, and evaluate mathematical models. For example, in Scope K.2I, students use models to compose the number 10 by exploring jars filled with images of different bugs. Working in small groups, they examine each jar and answer questions such as how many bugs are in the jar (always 10), how many types of bugs are present (usually two), and how many of each type (e.g., three ants and seven bees). They are also prompted to recall prior learning from Explore 4, such as recognizing that different combinations can still total 10.

The materials provide questions and tasks that support students in interpreting, analyzing, and evaluating models and representations of mathematical concepts and real-world situations. For example, in the unit lessons include instructional guidance that promotes mathematical discourse. For example, teachers are prompted to ask students to share their strategies, pose questions to one another, and make connections, while also encouraging students to notice similarities and differences in the strategies used to compare numerals. These questions provide students with multiple entry points into the content while promoting critical thinking and a deeper understanding of place value and number organization. The inclusion of both mathematical reasoning and real-world application ensures that students are actively engaging with the content at increasingly complex cognitive levels.

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

The materials provide the opportunity for students to create concrete and pictorial models of mathematical situations. For example, in Scope K.2ABC, K.5A, students use manipulatives and pictorial representations to count objects in a set. The materials state, "Instruct each student to choose 5 bags and fill each bag with a different manipulative from the containers provided. When students have filled their bags, ask them to return to their tables to trade bags with their partners and recount the manipulatives to make sure the bag has the correct number. When pairs agree that all bags have the correct number of manipulatives, instruct students to choose 4 bags to draw on their Student Journals."

The materials provide questions and tasks that offer opportunities for students to create concrete models and pictorial representations to represent mathematical situations. For example, in the unit "Represent Numbers to at Least 20," Explore 2: Count Objects and Organize Counts, the Student Journal prompts students to choose from a variety of tools—including a ten frame, empty space, counting strip, or double ten frame—to model and count objects. This flexibility encourages students to select and construct models that make sense to them. Additionally, the exit ticket includes a pictorial representation that students must count, followed by a task requiring them to create their own pictorial representation of a given number, reinforcing both understanding and representation of quantity. These tasks help students make concrete and visual connections to abstract numerical concepts.

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

In Scope K.2ABC and K.5A, students apply counting strategies to identify quantities in sets of objects. Building on this in Scope K.2DEFGH, they extend their understanding by comparing sets using various strategies. The materials support this development by prompting students with questions such as, "How did you know which set has more?" Suggested strategies include: counting each set, visually comparing quantities, matching objects one-to-one, and using the equal shares method—removing one object from each set simultaneously to determine which set has more when one is left over.

The materials offer opportunities for students to use their conceptual understanding to solve new types of problems and apply knowledge in different contexts. For example, in unit Compare Numbers to 20 Explore 4—Compare Written Numerals, the procedure and facilitation direct educators to check for understanding by asking, "DOK-3 How can you describe the comparison between the two baskets?" The lesson instructs educators to "ask students to share their strategies, and encourage them to ask each other questions and make connections. Encourage them to notice the similarities and differences in the process they used to compare numerals." The "Math Chat" directs educators to "choose a 'Structured Conversation Routine' to facilitate the following question: "DOK-2 What are some tools you could use to help you compare numbers?"

5.2 Development of Fluency

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.2a	All criteria for guidance met.	2/2
5.2b	All criteria for guidance met.	3/3
5.2c	All criteria for guidance met.	3/3
5.2d	All criteria for guidance met.	1/1
—	TOTAL	9/9

5.2a – Materials provide tasks that are designed to build student automaticity and fluency necessary to complete grade-level mathematical tasks.

The materials include tasks designed to develop the automaticity and fluency students need for grade-level math. For example, in the Two-Dimensional Shapes unit, the "Fluency Builder" activity "Different Orientations of 2-D Shapes" features a "Go Fish!" game that helps students practice shape recognition automaticity. Additionally, the Interactive Practice activity "Uncover the Shape" engages students in a digital game where they identify attributes of two-dimensional shapes and strengthen shape fluency.

The materials provide opportunities for students to develop automaticity with addition and subtraction facts. In Scope K.3ABC, the Explore lessons introduce various strategies such as Join and Separate, "Part-Part-Whole," and Counting. In Explore 4, students solve problems and justify their strategies. The lesson includes the prompt: "DOK-2 What counting strategies can you use to solve the problem?" with sample responses like, "I can start at 4 and count on 5 more to get to 9." Students are encouraged to explain their strategy to a partner, use linking cubes to create a pictorial model in their Student Journal, complete sentence frames to describe their thinking, and write a number sentence to represent their solution.

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

The materials provide efficient, flexible, and accurate mathematical procedures throughout learning pathways by guiding students from conceptual understanding to application. Students begin by exploring addition and subtraction through composing and decomposing numbers using manipulatives, pictorial models, and equations. This foundational work supports the development of strategies students later apply to solve addition and subtraction problems using the exact representations. In Scope K.3ABC, students solve problems while explaining their thinking to peers. Teacher guidance encourages the use of Student Journals, where students draw a pictorial model of their linking cubes, describe their strategy, and write a number sentence to represent their solution. At the end of the lesson, students reflect on their process with questions such as, "Which strategy helped you the most, and why?"

Conceptual understanding is gradually built into the materials, supporting students in developing accurate, flexible, and efficient mathematical processes. Students begin by exploring numeracy through

representing numbers with objects, pictorial models, and numerals, and later apply these representations to compare quantities. In Scope K.2DEFGH, students count and generate numbers using comparative language such as more, less, and equal. In Explore 1, teacher guidance prompts students to analyze an image and respond to the following questions: "How many small boxes are in this set? Can you tell without counting? How many large boxes are in this set? Which set has more or is greater?" By the end of the scope, students compare numerals using the strategies previously taught and are prompted to justify their reasoning with higher-level questions, such as: "Which building or buildings have more stories than the doctor building? What strategy did you use to compare?"

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

The materials provide opportunities for students to evaluate the efficiency, flexibility, and accuracy of mathematical representations throughout learning pathways. For example, in the kindergarten scope, Join and Separate, Explore 1, students evaluate representations and strategies while working with a partner to solve problems using manipulatives and a story mat. Students explain how many cookies they started with, whether they joined or separated, and the total at the end. The materials provide the following prompts, "How did counting help you solve the problem?" and "Can you tell me the answer without counting?" These prompts support students to reflect on their mathematical thinking and select appropriate strategies.

The materials provide opportunities for students to evaluate the efficiency, flexibility, and accuracy of mathematical representations throughout learning pathways. For example, in Scope K.2I, students are encouraged to use multiple strategies to compose and decompose the number 8. The materials provide guidance for students to reflect and evaluate their answers: "Ask students to share their strategies, and encourage them to ask each other questions and make connections. Encourage them to notice the similarities and differences in the processes they used to compose and decompose the number 8."

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

In the kindergarten scope, Join and Separate, the "Content Support" provides teachers with guidance and support in modeling, joining, and separating items. For example, "It is important that instruction begins with acting out problems with students or manipulatives and that it continues with students associating those actions with a pictorial model." Then, teachers are provided with guidance for Writing Number Sentences and Explaining Strategies: "As students work through the steps of creating their models to show the addition/joining or subtraction/separating process, write the numerals on the board as a visual aid. This bridges the connection from concrete model to pictorial model to abstract model throughout the course of their learning."

The materials provide teacher guidance to help students select increasingly efficient approaches to solve math problems. For example, Scope K.2ABC, K.5A teaches students how to count sets of objects. In Explore 2, students are introduced to the idea of organizing the objects in each set to expedite the counting process. Guidance provides questions the teacher can use, such as, "Can you explain your strategy for counting one of your collections?" Sample student responses include, "For collection 4, since there were more than five, we used a ten frame to organize the cubes and make sure we did not count any of them more than once."

5.3 Balance of Conceptual Understanding and Procedural Fluency

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.3a	All criteria for guidance met.	2/2
5.3b	All criteria for guidance met.	3/3
5.3c	All criteria for guidance met.	6/6
—	TOTAL	11/11

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

The materials explain how concepts are addressed both conceptually and procedurally. For example, in the "Content Support" section of Scope K–2EFGH, the conceptual process of comparing numbers is taught via sets of objects. The "Content Support" states, "Students use what they have learned about comparative language at the beginning of the scope to compare two sets of objects and apply the comparison to written numerals. Tools such as ten frames and linking cubes help students compare sets."

The materials explicitly state how the conceptual and procedural emphasis of the TEKS are addressed. For example, in unit Join and Separate Explore 4—Explain Addition and Subtraction Strategies, educators are instructed to "invite the students to a 'Math Chat' to share their observations and learning." Questions are provided to guide the discussion: "How is your pictorial model connected to the linking cubes you used to act out each problem? How does your number sentence represent the problem? What strategies did you use to solve each problem? Which strategy helped you the most, and why?"

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

The materials include opportunities for students to use concrete objects, pictorial models, and abstract strategies throughout the scopes. For example, in Scope K–2DEFGH, students are learning to compare objects, sets, and numerals. The educator guidance supports students to use concrete manipulatives to create and compare sets when given a number. Students use the "Student Journal" to draw a picture, write, and use comparative language to compare numerals.

The materials include opportunities for students to use concrete objects, pictorial models, and abstract strategies throughout the scopes. For example, in Scope K.2BC, students are learning to represent numbers to 20. In the Skills Quiz, students are counting pictorial and concrete sets of objects, drawing sets, and writing numerals to represent numbers. Question 1 asks, "Count the objects in the ten frames, and write the number," while question 3 asks students to count a set of raindrops and draw a set with an equal number.

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

The materials provide opportunities for students to connect concrete and pictorial models to algorithms. For example, in Scope K.2ABC, K.5C, the materials include a game for students to match a pictorial set of objects with the corresponding numeral and interactive games where students count ducks in a pond and choose the corresponding numeral. For example, the instructions for the match game state, "At the end of the game, have each player record two of the matches they made on the Student Recording Sheet. Have students explain why the 2 cards are a match. Encourage students to share their responses with their partners."

The materials offer opportunities for students to create concrete and pictorial models. For example, in Scope K.8ABC, students create graphs. They begin by sorting real objects, then move to create real-object graphs. In Explore 2, the teacher guidance states, "Instruct students to pour the fish out of the bag and onto the plate. Students get to decide how they want to sort the fish. Encourage students to notice what is the same and what is different about each fish. Ask students to use the Real-Object Graph to organize the data for their set of fish." In Explore 3, the teacher guidance states, "Give each student a Student Journal. Students circle how they sorted the buttons, then they create a picture graph. Students label the colors of the buttons along the bottom of the columns and give their graph a title. Finally, they draw colored circles on the graph to represent each picture card."

The materials provide opportunities for students to define and explain the relationships between concepts. For example, in Scope K.3ABC, the "Math Chat" provides question stems for teachers to help students make connections. Questions include, "How is your pictorial model connected to the linking cubes you used to act out each problem? Answers will vary. Each circle in the pictorial model represents one linking cube," and "How does your number sentence represent the problem?"

5.4 Development of Academic Mathematical Language

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

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

The materials provide opportunities for students to use manipulatives and visual supports within lessons. For example, in Scope K.4A, the activity includes sorting real coins, plastic coins, and paper coins. The "Math Chat" provides students with an opportunity to use academic language, such as, "Hold up a quarter. What are the characteristics of this coin?"

In the kindergarten scope, Compare Numbers to 10, Explore 1, students use linking cubes and chenille stems to pretend to have "Marshmallows on a Stick." In the activity, they compare two numbers by visually representing them using the linking cubes. In the "Math Chat," students engage in conversation to explain, "What strategies could you use to find the number that is one more or one less than the given number?"

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

The materials include embedded educator guidance to scaffold, support, and extend students' use of academic mathematical vocabulary in context when communicating with peers and educators. For example, in unit Compare Numbers to 20, the "Procedure and Facilitation Points" instruct educators to ask students to share their strategies, and encourage them to ask each other questions and make connections. To extend learning, the materials suggest challenging students to compare two given numbers and then prove their answers using manipulatives or pictures.

Embedded within the materials is guidance to help educators scaffold, support, and enhance students' use of academic mathematical vocabulary in meaningful peer and teacher interactions. For example, in Scope K.9ABCD, as students explore the concept of needs and wants, educator guidance includes explicit instruction to "discuss the terms needs and wants" and recommends using visuals and real-life examples to build understanding. During group work, educators are encouraged to circulate and use probing questions like, "Is this a want or a need?" "Why is this item a want/need?" Additionally, the materials

extend student learning through higher-level questioning. For example, the "Math Chat" includes the prompt, "When in real life would you need to know the difference between needs and wants?"

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

The materials include embedded guidance to support the application of appropriate mathematical language and academic vocabulary in discourse. For example, in unit Count Objects, Explore 3, step 15, the "Procedure and Facilitation Points" instruct educators to "monitor students, and check for understanding as needed using the following guiding questions: How was starting at 3 different from starting at 1? What number did you roll? How do you count to this number? How would you count from this number back to 3?"

The materials offer language support for students to use academic vocabulary in context during lessons. For example, in Scope K.6ADEF, as students sort and classify two-dimensional shapes, the lesson includes opportunities for discourse through "Math Chat" questions, such as "What are vertices, in your own words?" "What attributes did you look at when matching the shape to the dollhouse piece?" The materials also provide scaffolded support for structured conversations. For instance, teachers are guided to facilitate partner discussions using sentence frames like: "Partner A: What dollhouse piece do you have? Partner B: I have a.... Partner A: What shape is it? Partner B: It looks like a.... It has... sides and... vertices."

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

The materials provide prompts and guidance for educators to facilitate conversations about math topics. For example, in Scope K.2DEFGH, students engage in discussions throughout the lesson to demonstrate understanding of comparing sets. Educator guidance includes question stems and possible student responses, such as "How did you represent the small boxes?" "How did you represent the large boxes?" To further check understanding, teachers are prompted to ask, "How did you know how many of each box?" The materials also provide language support to structure student discourse. During the "Math Chat," teachers are encouraged to allow students to discuss their thinking with a partner or small group before sharing with the whole class, helping students develop confidence in expressing mathematical ideas. Sentence structures are provided to support student conversations, such as "I have... large boxes," "I have... small boxes," "There are more... boxes than... boxes," "_____ is more than," "is less than," and "is equal to... ."

Materials include embedded guidance to facilitate mathematical conversations, enabling students to hear, refine, and use math language with peers. For example, in unit "Data Analysis, Explore 3"—Create Picture Graphs, educators are instructed to invite the class to a "Math Chat" to share observations and learning. They are guided to use a "Structured Conversation Routine" to facilitate questions, such as "How

can pictures be used to represent data? Do the data or categories change if the grid is turned?" Students share their picture graphs with a partner and discuss how their graphs compare.

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.

In the kindergarten scope, "Compare Numbers to 10, Explore 1," the teacher guides students through a "Math Chat" with questions such as, "Were any of the numbers the same? If so, give an example." A sample student response is, "Yes, 2 and 4 and 4 and 2." This provides an opportunity to explain that the order of numbers does not matter and that the same combination will always equal six. Additionally, the "Content Support" section addresses student misunderstandings in the "Misconceptions and Obstacles" by noting that students may, when subitizing, recognize only part of a structured arrangement and fail to connect the entire arrangement to the actual number.

Materials include embedded guidance to anticipate a variety of student answers, including exemplar responses to questions and tasks. For example, in Scope K.2I, where students compose and decompose numbers to 10, questions prompt students to explain their thinking: "Were any of the combinations of numbers equal to 8 similar? Give an example," Another question asks, "What was different about the similar combinations equal to 8?"

5.5 Process Standards Connection

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.5a	All criteria for guidance met.	1/1
5.5b	All criteria for guidance met.	2/2
5.5c	All criteria for guidance met.	1/1
—	TOTAL	4/4

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

The materials embed the "Mathematical Process Standards" from the TEKS within each scope. For example, in Scope K.6ADEF, students build their knowledge of two-dimensional shapes. The two key processing standards addressed are: K.1C, which involves selecting appropriate tools and techniques, such as manipulatives and mental math, to solve problems, and K.1D, which focuses on communicating mathematical ideas, reasoning, and implications using multiple representations like symbols, diagrams, graphs, and language.

The materials appropriately integrate the TEKS process standards. For example, in the "Unit Money," the "Content Support" section explicitly addresses several process standards. Students apply mathematics to real-life situations, such as collecting coins and playing games (K.1A). They use a problem-solving model that includes analyzing information, planning, determining solutions, and justifying their reasoning through "Math Chat" discussions (K.1B). Students select and use various tools—including real coins, manipulatives, pictures, mats, and journals—to solve problems and identify coins by their attributes (K.1C). They communicate their ideas and reasoning using multiple representations such as coin rubbings, sorting mats, and drawings (K.1D). Additionally, students create and use representations to organize and communicate mathematical ideas (K.1E), analyze relationships between real coins and manipulatives to identify coins by name (K.1F), and display, explain, and justify their mathematical ideas using precise language (K.1G).

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

The materials include a clear description of how process standards are incorporated and connected throughout the learning pathways. Each unit's Home section features "Content Supports" and a section titled "Applying Mathematical Process Standards," which offers concrete examples for teachers to actively engage students in problem solving, communication, reasoning, and representation. For example, the process standard K.1C, selecting appropriate tools and techniques to solve problems, is demonstrated in the Count Objects unit. In the Explore—Daily Numeracy—Counting section, students count collections, participate in choral counting, or complete patterns using objects, pictures, and graphic organizers.

The materials provide an overview of the TEKS addressed within each scope. For example, in Scope K.2ABC, K.5A, one of the standards addressed is TEKS K.2A: count forward and backward to at least 20 with and without objects. The scope also lists aligned "Mathematical Process Standards." For instance, Process Standard K.1C—selecting appropriate tools and techniques such as objects, Counting Mats, cutouts, paper and pencil models, and virtual manipulatives—is used to support TEKS K.2A by helping students solve problems and represent numbers up to 20.

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

In the kindergarten scope, Compare Numbers to 10, "Content Support" provides all of the "Mathematical Process Standards" to be included in this scope, with an example of what that would look like in this scope. For example, "K.1A Apply mathematics to problems arising in everyday life, society, and the workplace: Students compare numbers to 10 in everyday life, society, and workplace situations, such as camping, working at the local post office, and gathering data for an architectural team." The materials include an overview of the TEKS process standards incorporated into each lesson. For example, in the unit Compare Numbers to 20, Explore 1—Compare Sets, the lesson lists the process standards addressed, including applying mathematics to real-world situations (K.1A), communicating mathematical ideas using multiple representations (K.1D), creating and using representations to organize and share ideas (K.1E), and analyzing mathematical relationships to connect and communicate understanding (K.1F).

6. Productive Struggle

Materials support students in applying disciplinary practices to productive problem-solving, including explaining and revising their thinking.

6.1 Student Self-Efficacy

GUIDANCE	SCORE SUMMARY	RAW SCORE
6.1a	All criteria for guidance met.	3/3
6.1b	All criteria for guidance met.	3/3
6.1c	All criteria for guidance met.	3/3
—	TOTAL	9/9

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

The materials provide students with multiple opportunities to apply mathematical thinking and engage in productive struggle. For example, in Scope K.3ABC: Join and Separate, students represent addition and subtraction problems by building models. Students are encouraged to persevere through problem solving, such as when given time to independently solve a task before engaging in guided questioning: "How many books did we start with? What is happening to the books? Why did you decide to add more books?" Students then use cutouts and story mats to model the problem, draw their representation, and complete a number sentence in their Student Journals. The materials also promote mathematical discourse through structured "Math Chats," giving students opportunities to explain their thinking and explore multiple strategies: "What counting strategies did you use? What other strategies could be used?" These activities support conceptual understanding by encouraging students to represent problems in various ways and justify their reasoning.

The materials provide opportunities for students to think mathematically, persevere through solving problems, and make sense of mathematics. For example, in the Compare Numbers to 20 unit, the Engage-Hook-Counting Tickets lesson in the Procedure and Facilitation Points section guides teachers to present a math scenario to students and ask guiding questions such as, "Where can you see math in this situation?" Finally, students are asked to make predictions about what will happen next in the scenario.

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

The materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks. For example, in unit K.8ABC Data Analysis, during Explore 4: Collect Data and Create Picture Graphs, the "Math Chat" provides guiding questions for educators to encourage mathematical thinking and discourse. Students are prompted to reflect on their process with questions, such as "How did the survey help you create your picture graph?" and explain connections

between representations with, "DOK-2: How are your survey and picture graph similar?" To deepen understanding, educators are instructed to use a "Structured Conversation Routine" to facilitate justification with the DOK-3 prompt: "What information can we learn from our graph?" These supports promote reasoning, multiple solution paths, and collaborative sense-making.

The materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks. For example, in the Represent Numbers to at Least 20 unit, during Explore–Explore 2: Count Objects and Organize Counts, the "Procedure and Facilitation Points" section guides students to work in groups using Counting Mats to organize and count a collection of objects. Students are given the autonomy to choose how they want to count the collection, encouraging exploration of multiple methods. They then draw a picture to represent the number of items and write the numeral. To conclude the lesson, teachers facilitate a discussion in which students share their strategies, make connections between different approaches, and identify similarities and differences in their processes. These activities promote mathematical thinking and help students discover their methods for solving problems.

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 offer multiple opportunities for students to demonstrate their understanding of mathematics through reading, writing, and discussing. For example, in Scope K.3ABC: Join and Separate, students collaborate with peers to solve addition and subtraction problems with educator support. The educator guidance directs teachers to "Project Task Card 1. Read the problem aloud as students follow along. Instruct students to act out the problem using their linking cubes. Pause between sentences as you read to give students time to act it out." This approach integrates listening and reading comprehension with physical modeling and peer discussion, allowing students to process and express mathematical understanding in multiple ways.

The materials provide multiple opportunities for students to demonstrate their understanding of mathematics through discussion, reflection, and reasoning. In Scope Compare Numbers to 10, during Explore 1—Generate More or Less, teacher guidance prompts a whole-class "Math Chat" to encourage students to share their observations and learning. For example, students are asked, "What do you notice about the sets of marshmallows you built that were less than the starting amount? What do you notice about the sets . . . that were more? "How were these activities similar? How were they different?" These questions help students make connections between concepts, compare strategies, and explain their thinking. Further prompts like "What strategies can you use . . . ?" and "Why would you need to generate sets or numbers more or less than a given number outside of school?" support students in applying mathematical ideas to real-world contexts and communicating their understanding through oral language and reasoning.

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 provide teacher support to help students explain their thinking and justify mathematical arguments when counting objects up to 10, for example, in Scope K–2ABC and K.5A. During the "Math Chat," students explain how they counted their objects by answering questions, such as "How did you count your objects?" and "What can you draw to represent your objects?" They also consider, "Does your drawing match the number of objects in the bag?" and "What numeral did you write to represent how much you counted?" Afterward, students participate in a structured conversation guided by the teacher, who asks, "When your partner took a turn counting the items, did they start at the same object and end at the same object?" and "Did that mean your partner counted a different number of items?" Students justify their thinking by explaining, "No, I counted from the top down, and my partner counted from the bottom up," or "No, my partner counted the same number of items as I did." This helps them understand that the total number of items is the same regardless of the order in which they are counted.

The materials provide educator support to facilitate student reflection. For example, in Scope K.2EFGH: Compare Numbers to 20, students compare numbers up to 20. Educators guide reflection through structured conversations, such as "Explain how you compared the two sets of dishes." Students might respond, "We placed the pictures into the ten frames. They both had one full ten frame, but this one had more in the other ten frame, so that set has more than the other one." Students support their arguments during teacher-led discussions by answering questions like, "What words did you choose to correctly compare these two sets?" with responses such as, "18 bowls is more than 16 bowls." Educators also encourage reflection through justification after playing the math fluency game, "Compare Numbers to 10 with Cookies." According to the teacher guidance, at the end of the game, each player records two of their matches on a Student Recording Sheet and explains why those two cards form a match. Students are encouraged to share their explanations with partners, further supporting their reasoning.

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

The materials provide clear guidance to help educators deliver explanatory feedback based on student responses and anticipated misconceptions. Each scope includes a "Content Support" document with a "Misconceptions and Obstacles" section. For example, in Unit K.2DEFGH, it highlights common misconceptions such as students only partially subitizing structured arrangements or comparing groups

based on object size instead of quantity. It also notes confusion around comparison terms (e.g., "greater than" vs. "less than") and the equal sign being seen as an operation rather than a relational symbol.

Educator prompts and scaffolds are embedded throughout to address these misconceptions. In Scope K.9ABCD on Personal Financial Literacy, materials anticipate confusion between wants and needs. Teachers are guided to facilitate discussions using targeted questions (e.g., "Why would you put this item in the 'needs' basket?"), helping students distinguish between desire and necessity.

In the Compare Numbers to 20 unit, sample student responses and teacher feedback are provided to support understanding. For instance, teachers might ask, "How many pepperonis are on each pizza?" and guide students to model numbers with precision if additional support is needed.