Accelerate Learning Inc.

Supplemental English Mathematics, 1

STEMscopes Texas Math Pulse–Grade 1 English

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Supplemental	**9798330804849**	**Digital**	**Static**

Rating Overview

TEKS SCORE	TEKS BREAKOUTS ATTEMPTED	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	174	12	Flags Addressed	Flags in Report	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	1	0	0
3. Parental Rights and Responsibilities	0	0	0
4. Prohibition on Forced Political Activity	0	0	0
5. Protecting Children's Innocence	0	0	0
6. Promoting Sexual Risk Avoidance	0	0	0
7. Compliance with the Children's Internet Protection Act (CIPA)	0	0	0

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

IMRA Quality Report

1. Intentional Instructional Design

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

1.1 Course-Level Design

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

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

The Grade 1: "Scope and Sequence" table includes five sections: Scope Name, TEKS covered, Explore, Included Standards, and Total Instructional Days. The Scope Name in the table provides the overall concept covered, and the Explores section breaks down each concept into smaller topics. There are 15 Scope Name concepts in the Scope and Sequence, and three Scope Name concepts that are ongoing at the bottom. The ongoing concepts include Daily Numeracy, Fact Fluency: Addition and Subtraction, and Data Science.

The "Grade 1 Course Rationale" provides a summary of each unit and how it connects to previous and future scope materials. For example, the Add and Subtract within 10 Scope builds directly on the introductory concepts, using objects and pictorial models to solve problems and explain strategies for addition and subtraction. This scope "lays the groundwork for understanding operations within a larger numerical context" (the Add and Subtract Within 20 Scope).

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 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 across all scopes within the materials: "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 also provides guidance that includes the four steps across all lessons within the materials: "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 this guidance met.	7/7
1.2b	This guidance is not applicable to the program.	N/A
1.2c	All criteria for this guidance met.	2/2
—	**TOTAL**	9/9

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

Alignment with the TEKS and ELPS, as well as the "Mathematical Process Standards," is found in the Grade 1 Scope and Sequence. For example, Grade 1 Scope 1.9ABCD, Personal and Financial Literacy includes TEKS 1.9A, 1.9B, 1.9C, 1.9D; ELPS 1. ACEF, 2.CDEH, 3. BCDEF, and 4. DF (in Explore 1), and MPS K.11ABC (in Explore 1).

Detailed lesson plans with learning objectives, teacher and student materials, suggested timeframes, and assessments aligned to the TEKS and ELPS are present within the Suggested Scope Calendar in each scope. In Scope 1.9ABCD, the objective for Day 2 is "Students define income and list jobs where income is earned," and the suggested timestamps are "Warm-up Options (5–10 minutes), Whole Group (45–60 minutes), Small Group (15–30 minutes), and Assessment Options (5–15 minutes)."

The materials include detailed lesson plans with learning objectives and a suggested timeframe, such as "Day 1: Objective—Students are introduced to an activity where they identify and describe the attributes of three-dimensional solids used in the design for a toy competition. Students will revisit the activity after the corresponding Explorers have been completed."

The materials include detailed lesson plans with teacher and student materials listed. For example, the lesson list includes the material that needs to be printed for the students and a teacher "preparation" section. Plan to have students work in groups of four or five to complete this activity. Print the Shape Cutouts for each group. Collect the three-dimensional solids and place them inside a large container with the bag of shared cutouts for each group. Collect enough scissors and glue sticks for each student to have their own.

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 1.8ABC includes a "Tic-Tac-Toe: Try This at Home" game, which includes activities such as a Question of the Day and a Toy Sort activity.

The "Take-Home Letter" under the "Home" section in the grade 1 scope, Addition and Subtraction Problem Solving, provides guardians with background information for models for adding and subtracting, along with sample problems. It includes a tic-tac-toe game for guardians to assist their students with real-world examples of adding and subtracting. Both the letter and the game 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 this guidance met.	2/2
2.1b	All criteria for this 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 this guidance met.	4/4
2.1e	All criteria for this 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" is 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, Scope 1.6EB, the "Procedure and Facilitation Points" for the Skills Quiz include "1. Distribute the Student Handout to each student. 2. Prompt students to show what they know in completing the assessment. 3. Allow students to reflect on their performances using the Heat Map. 4. Once student data has been collected after the assessment, refer to the *Scaffolded Instruction Guide* in the Home section of this scope to differentiate instruction for each student."

The materials provide scripts to ensure consistent administration of instructional assessments. For example, "Show What You Know" assessments are provided within each scope. Each "Show What You Know" comes with "Procedure and Facilitation Points." For example, in Scope 1.4ABC, "Show What You Know—Part 1: Sort and Identify Coins" has the following "Procedure and Facilitation Points": "Reading assistance may be needed for some students to complete this activity. Students should individually complete the 'Show What You Know' activity that correlates with the Explore activity already completed. Provide manipulatives as needed, especially those manipulatives used in Explore. This element can be used to assess whether intervention is needed for each student."

The Skills Quiz is "A standards-based assessment to determine the student's ability to solve mathematical problems efficiently and accurately." The Skills Quiz measures what it is designed to measure and is an accurate assessment. For example, in Grade 1 Skills Quiz 1.3BE, 1.5D, Add and Subtract Within 20, question 1 asks, "Read or listen to the word problem, and use the picture to solve. Tom had nine cats. His mom gets three more cats. How many cats do they have combined?"

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 1.3D, 1.5EFG, 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. Each assessment offers multiple questions, and each question is aligned to the TEKS. Within the Grade 1 Growth Measure Pre-Assessment, questions include multiple levels of complexity. For example, students are introduced to recall-level questions such as "What is the next number after 14?" and "5 + 3 = ___"; application-level questions such as "Ben has seven rocks. Pablo has three rocks. How many total rocks do Pablo and Ben have?"; 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?"

Materials include diagnostic assessments with interactive item-type questions or tasks. Three Benchmark Assessments are included as diagnostic or summative "package assessments." Each assessment offers multiple questions, and each question is aligned to the TEKS. Within the Grade 1 Mid-Assessment, questions include multiple levels of complexity. For example, students are introduced to recall-level questions such as "Which words describe what makes these triangles?", application-level questions such as "The Garden club noticed six carrots growing in the garden on Monday. On Tuesday, there were seven more carrots growing in the garden. How many carrots are in the garden now? What number sentence represents this word problem?", and the Mid-Assessment has higher-order thinking questions such as "Which word problem matches this number sentence? 15 - 4 = 11." Questions are in a multiple-choice format. Tasks prompt students to count numbers in a set and identify the correct numeral, use models to determine the answer to an equation, use data to create graphs, identify a set that correctly represents an addition or subtraction model, and use a set of objects to create an equation.

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

Materials include multiple, TEKS-aligned formative assessment options within each scope that include, but are not limited to, exit tickets, observation checklists, and Skills Quizzes. In Scope 1.6GH, the Skills Quiz contains questions with varying levels of complexity, including partitioning shapes into equal parts, labeling the parts, and coloring examples of shapes partitioned into fractions. For example, question 1 asks students to partition the circle into two equal parts, and after that it asks, "1 part of the circle is called ___?" Question 3 asks students to color the examples of fractions and put an x on each nonexample.

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 1.3D, 1.5EFG, the exit tickets for each Explore lesson progress through varying levels of complexity. In the exit ticket for "Explore 1," students are expected to draw a pictorial model of an equation, 8 + 7. Then, they are expected to write an equation to make 10 and a different equation to add the remainder. Last, they are expected to add 10 + 5 to get the total. In the exit ticket for "Explore 2," students are expected to solve subtraction problems by drawing pictorial models to decompose the subtrahend to a fact of 10. In the exit ticket for "Explore 3," students are expected to create pictorial models for two additional equations and compare them in writing. In the exit ticket for "Explore 4," students are expected to match equations with equal sums and find the missing subtrahend to complete an equation. For example, the "Explore 4" exit ticket sentence frame is 3 + 4 = 17 – _____ because they both = _____. The exit ticket for "Explore 5" asks students to find the missing addend or minuend within an addition or subtraction equation.

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 this guidance met.	1/1
2.2c	All criteria for this guidance met.	2/2
2.2d	All criteria for this 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 1.6GH, the materials provide an answer key for each exit ticket. Each answer key shows "Show What You Know," the spiraled review, the intervention checkup, acceleration, and the skills assessment. A rationale for correct and incorrect responses is not included in the materials.

In the Explore tab, the scope includes three Explore lessons, each accompanied by an exit ticket. An answer key is provided for each exit ticket to support accurate assessment of student understanding. The Home tab, under "Content Support," offers teachers valuable background information, addresses common misconceptions, and connects to the "Mathematical Process Standards." This section provides an in-depth explanation of the instructional approach, including specific examples to guide classroom practice. For example, it explains: "Students sort and organize data into up to three categories using tally marks or T-charts. They include titles and labels to clearly record the information. As this is the first time students are introduced to tally marks and T-charts, explicit instruction on how to correctly form tally marks—especially grouping them in fives—should be included."

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

The materials provide multiple opportunities, such as exit tickets and "Show What You Know" opportunities, to respond to student understanding throughout the scope. For example, in Scope 1.7E, "Show What You Know"—Part 1: Hour-Hand Clocks, students are asked to "Complete the T-chart by drawing the hour hand or writing the time." The “Procedure and Facilitation Points" state, "This element can be used to assess whether intervention is needed for each student." This opportunity to assess for intervention is available for "Show What You Know"—Parts 2 and 3.

The materials provide intervention lessons with targeted strategies aligned to each lesson within the scope. For example, in Scope 1.2ADEFG, the lessons included are "Generate Numbers Greater Than and Less Than," "Compare Numbers with Place Value," "Use Comparison Symbols," and "Order Numbers." 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 "Generate Numbers Greater Than and Less Than," Part II is titled "Compare Numbers with Place Value," Part III is titled "Use Comparison Symbols," and Part IV is titled "Order Numbers." 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 1.3F 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 materials provide a Heat Map for students to track their progress across Benchmark Assessments. For example, after taking the "STEMscopes Texas Math Grade 1 Pre-Assessment," the Heat Map instructions state, "Refer to your answers on the Benchmark Pre-Assessment. Next to each standard, color the question box green if your answer is correct. Color the question box red if your answer is incorrect."

2.2d – If designed to be static, materials provide prompts and guidance to support educators in conducting frequent checks for understanding at key points throughout each lesson or activity.

The materials provide prompts for teachers to conduct checks for understanding throughout lessons and activities. For example, in Scope 1.6EB, each "Explore" lesson has embedded DOK questions for teachers to ask at different points. "Explore 1" has prompts and questions such as, "Monitor and talk with students as needed to check for understanding by using the following guiding questions: DOK-2 How did you sort your figures? Answers will vary. We sorted our figures by 2-D shapes and 3-D solids. We sorted our shapes and solids by curved lines/edges and straight lines/edges."

The materials provide guidance for teachers to check for understanding throughout lessons and activities. For example, in Scope 1.9ABCD, the teacher guidance states, "If students need additional support in determining whether an item is a need or a want, model a 'think-aloud' strategy. Choose an item and talk about how you know it is a need or a want."

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 1.3BCE, 1.5D, the *Scaffolded Instruction Guide* provides a framework for intervention for students within Previous Grade Level Remediation (0–25 percent) and provides a link to the kindergarten lesson "Join and Separate, Small Group Intervention Parts 1–4." This lesson provides explicit teacher instructions, such as, "Prior to beginning the activity, ask students to tell you everything they know about joining and separating objects. As students answer, check to see if they understand the definitions of the words 'join,' 'separate,' and 'total,' and that they can use one-to-one correspondence to count 10 objects. Identify any misconceptions the students have." The materials also provide links to interactive activities.

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 Scope Length for TEK 1.7C object with different units and explaining the difference), the *Scaffolded Instruction Guide* provides targeted activities based on student performance levels: Previous Grade Level Remediation (0–25 percentile) works on "Fluency Builder—Comparing Measurements" while students performing at Grade Level with Supports (25–50 percentile) receive small-group intervention. These differentiated resources help teachers tailor instruction to student needs using assessment data.

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 1.3BE, 1.5D, Explore 3, the Language Support provides guidance for embedding support throughout the lesson, such as, "Read the Shipment Task Cards aloud as students point to the words you're reading. Emphasize the phrases 'how many,' 'how many more,' and 'how many fewer.' Create a word wall with these terms. Students may use them to self-monitor as they complete the sentence frames on their Student Journals."

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

The materials include a *Scaffolded Instruction Guide* in the Home tab of each scope, offering explicit guidance for enrichment and extension based on student data. For example, in Scope 1.6ABCDF, the teacher guidance states, "As an extension, pair students for a game. Have one student in the pair think of a shape, and have the other student try to guess what the shape is by asking the following questions, or something similar: Does the shape have ____ sides? Does the shape have more than ____ vertices? Does the shape have curved sides? Is the shape similar to a square?"

The materials provide explicit educator guidance for enrichment for students who have demonstrated proficiency in grade-level content and skills. For example, in Scope 1.8ABC, the teacher guidance is located within the "Acceleration" tab. It states, "Students explore connections and applications of math and other cross-curricular content through interactions with authentic, real-world media provided by Associated Press."

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

The materials do not allow educators to enable and disable text-to-speech or content and language 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 Scopes 1.2BC, 1.3A, and 1.5ABC, 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 Scopes 1.3D, 1.5EFG, students demonstrate their knowledge of adding numbers using the "Make 10" strategy with manipulatives (rekenrek), verbal explanations, drawing pictorial models, and writing. The materials provide the teacher with support to check for understanding. For example, the lesson provides the following teacher question and possible student response: "DOK-3: How can you use the rekenrek to help you make a 10? Answers will vary. We pushed seven beads over on the top row and eight beads on the bottom row. We added the five beads on top with the five beads on bottom to equal 10, and then added the five leftover beads to equal 15." The exit ticket provides students with an opportunity to draw a pictorial representation of the rekenrek to demonstrate their learning.

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 1.6ABCDF, the lesson activates student prior knowledge with the following prompts about capacity: "Did you identify or classify shapes in kindergarten? How do you know this shape (display a real triangle or picture of one) is a triangle? Have you ever been to a carnival? What are your favorite carnival games? What is your favorite carnival ride or activity?" The following activity, Guess My Shape, uses student knowledge to identify shapes to win a prize.

The materials provide explicit prompts and guidance for educators to anchor big ideas and highlight and connect key patterns, features, and relationships through multiple means of representation. Each lesson is anchored in a Phenomena activity. For example, in Scope 1.3BE, 1.5D, the Phenomena shows a child playing cards. Students watch the video, and they answer questions related to the Phenomena and add or subtract numbers. For example, the lesson states: "Show the Phenomena. Ask students the following questions: What do you notice? Where can you see math in this situation?" This scenario sets up a real-world problem that encourages students to apply addition and subtraction skills to determine how many cards Sergio gained and how many Alan lost after a series of games. It supports mathematical reasoning through contextual problem solving. Throughout the scope, students will use their knowledge to add or subtract using multiple means of representation. For example, Explore 1 states: "Instruct students to read the Order Card and create a concrete model of the order using the Double Ten Frame Mat and color tiles." After that, it states, "Give each student a Student Journal. Students will draw a pictorial model and write a number sentence to show the answer to each problem on their Student Journals." Students repeat this process for both addition and subtraction problems.

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

The materials provide various instructional approaches, including collaboration, structured conversation, and direct instruction. For example, in Scope 1.7ABCD, students work in groups to measure objects using concrete tools. Then, they engage in a conversation with the following teacher guidance: "Choose a 'Structured Conversation Routine' to facilitate the following question (DOK-2) How do we determine the correct tool to use when measuring an object?" For students needing support, the teacher has intervention lessons that include direct instruction for students. For example, Part I of the Small-Group Intervention lesson states, discuss the concepts of shorter and longer, explaining that shorter means "smaller" and longer means "bigger." Have students find one item in the room that is shorter and one that is longer than their strip. As they search, ask guiding questions like, "How will you know if an object is shorter than your strip?"

The materials provide various instructional approaches, including collaboration, structured conversation, direct instruction, and games. For example, in Scope 1.8ABC, students work with a partner to collect and sort data. Teacher guidance states, "Instruct students to use the data on the tally charts to create picture graphs with the Picture Cards. Monitor and talk with students as needed to check for understanding by asking the following guiding questions: DOK-2 How can you use the data from the tally chart to create a picture graph?" Students then engage in a discussion guided by the teacher using a "Structured Conversation Routine" to explore the question, "When surveying, can one student pick more than one choice? Explain your thinking." The materials also include interactive games to reinforce content. For example, in Scope 1.8ABC, the "Interactive Practice—Farmers Market" game allows students to sort collections of fruit and create tally charts, picture graphs, and bar graphs.

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 multi-tiered intervention methods, including small group, collaborative, and individual opportunities. For example, in Scope 1.2ADEFG, the "Intervention" lessons include guided, collaborative, and independent practice in addition to instruction within small group, partner, and individual settings. In Part I, the lesson states, students work in pairs with a set of Number Cards and 120 linking cubes. They choose a card and build a number less than the one shown using the cubes. Later, each student places their Number Card on an open number line, followed by a group discussion about its placement, encouraging reasoning based on the position of other numbers.

The materials provide multi-tiered intervention methods, including group, partner, and guided practice opportunities. For example, in Scope 1.8ABC, the "Intervention" lessons include working together as a group with manipulatives, working individually, and collaborative discussion. In Part I, the lesson states have students work in pairs, each receiving 10 differently colored linking cubes. Together, they sort the cubes into three color groups while you observe and listen to their process. In Explore 1, the materials

provide teachers with explicit intervention instructions before having students change activities. For example, the materials state, if students need extra help creating T-charts, consider reviewing the Skill Basics on how to make a T-chart and draw tally marks for additional practice.

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

The materials provide enrichment and extension materials to promote engagement, and they provide educator guidance for each activity. For example, in Scope 1.6EB, the "Acceleration" tab provides a real-world scenario for students to explore. Students 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 this picture?” (e.g., why the coin is in a case, its value, or how math is involved). Students then complete the handout independently or with a partner.

The materials provide enrichment and extension materials to promote engagement, and they provide educator guidance for each activity. For example, in Scope 1.8ABC, the "Explore 3" lesson provides an opportunity for extension. The teacher guidance states, challenge students to create their own scenarios by generating questions with answer choices. Have them survey classmates and make bar graphs based on topics such as favorite board games, morning routines, or favorite TV shows.

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

The materials guide to support educators in providing feedback within the lesson. For example, in the Explore lessons in Scope 1.6ABCDF, the materials provide guidance such as "Monitor and talk with students as needed to check for understanding by using the following guiding questions: What attributes does the shape have?"

The materials guide to support educators in providing feedback within the lesson. For example, in the Intervention lessons in Scope 1.7E, the materials provide guidance such as "As students work, ask why they have paired cards together. Listen to their explanations. If their reasoning is good, move to another pair of cards or ask another pair of students the same question. Make sure to ask each pair of students this question at least once. If their reasoning is not sound, ask the following guiding questions: 'What is the hour hand on this card pointing to?'"

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 the teacher to provide language support for students at varying levels of linguistic ability. For example, in Scope 1.6ABCDF, Explore 2, 3, 4, and 5 address the ELPS 1.B "demonstrate an understanding of content-area vocabulary when heard during formal and informal classroom interactions by responding with gestures or images, orally, or in writing." The educator supports include ways for engaging students at all proficiency levels: (a) "Use hand gestures to represent each of the shapes." (b) "For multilingual learners, emphasize the similarity between the English vocabulary and the vocabulary in their home language. Spanish examples include the following terms: triangle and *el tringulo*, rectangle and *el rectángulo*, circle and *el círculo*, hexagon and *el hexágono*, and vertex/vertices and *el vérticelos/vértices*." The materials also encourage using visual word walls of shape names to support students to have conversations with increased academic vocabulary.

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

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

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

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

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

In the "Teacher Toolbox" within each grade-level scope, the "Multilingual Learners" tab provides 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 regular opportunities for oral discourse, with structured routines embedded within each scope to promote academic vocabulary development. In Scope 1.2ADEFG, students are introduced to key vocabulary, and teacher guidance prompts discussion using questions, such as: "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?" Explore 3 includes explicit cross-linguistic connections for Spanish and Portuguese speakers. For example, the teacher is encouraged to connect the English word comparison to *comparación* (Spanish) or *comparao* (Portuguese) and to discuss its meaning in the context of comparing numbers. Additional oral discourse is facilitated through "Math Chats" and collaborative group work. In Explore 3, teachers are guided to check for understanding through targeted questions: "What are the two weights you are comparing? What did you draw as your pictorial model? Which weight is greater? How would you draw and read the comparison symbol? Did you get the same answer when you flipped the numbers? Why?" These structured discussions allow students to use mathematical language, explain their reasoning, and engage in peer conversations, supporting both content understanding and language development.

The materials provide regular opportunities for written discourse, with each Explore lesson beginning with guiding questions that activate prior knowledge. In Scope 1.3F, Explore 2 opens with prompts, such as: "Can you think of a time when you went to a zoo, circus, or park? What was the most interesting thing you saw? How can you use addition and subtraction to help you remember what you saw?" During the lesson, students work with a partner to generate word problems based on number sentences. Visual and linguistic supports are embedded throughout the activity. Teachers are instructed to display images from the Equation Cards and discuss unfamiliar vocabulary such as balance ball, ringmaster, tricks, handstand, and hoop. To further support language development, students may be given pictures of circus-related objects and an illustrated verb bank to help generate ideas. Students are encouraged to first express their ideas orally before writing their word problems, then read their work aloud to evaluate clarity and make revisions. The lesson provides differentiated support through two levels of scaffolding. Level 1 cards include sentence frames with blanks for students to complete: "8 + 9 = ___... ___ bears are walking on a giant balance ball... ___ more ___ join them...." Level 2 cards provide only the number sentence (e.g., 8 + 9 = ___), prompting students to create their own word problem collaboratively.

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 this guidance met.	2/2
4.1b	All criteria for this 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 "Two-Dimensional Shapes" scope, "Explain—Show what you know—Part 1: Sort Shapes" section, students engage in an activity where they circle the attribute that will help them name the shape. In the same scope, "Explore 4—Create 2-D Shapes" includes an exit ticket where students draw the following shapes: triangle, circle, square, rectangle, hexagon, and rhombus.

Scope 1.7E includes opportunities for students to practice telling time to the hour and half hour using analog and digital clocks. In "Explore 1," students review time using hour-hand clocks. In "Explore 2," students use analog clocks with hour and minute hands to tell time to the hour and half-hour. In "Explore 3," students use analog and digital clocks to tell time to the hour and half hour. Students practice matching analog and digital clocks in a "Go Fish!" game. The materials include an exit ticket that assesses time using an hour-hand clock, an analog clock, and a digital clock. The "Skills Assessment" assesses time to the hour and half-hour using analog and digital clocks.

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 1.3BE, 1.5D, students are introduced to addition and subtraction within 20. "Explore 1" allows students to solve real-world addition and subtraction problems up to 20 using pictures and models. "Explore 2" provides students the opportunity to engage in a real-world scenario of making bracelets while solving equations with the "change unknown." During "Explore 3," students use comparative language within word problems to solve. The "Math Chat" questions span from DOK-3 to DOK-4. In "Explore 4," students use "Part-Part-Whole" and "Whole or Part Unknown (to 20)" to solve addition and subtraction word problems within 20. The "Math Chat" questions include DOK-3 and DOK-4 questions, such as, "What is another way to solve this problem? Discuss the strategies used and why different strategies work." In "Explore 5," students solve word problems of the unknown. The materials provide

multiple opportunities for addition and subtraction practice. In the "Elaborate" section, the "Spiraled Review—Fast Food Fun" provides students with a menu to solve real-world scenarios.

The "Acceleration" section within each scope provides extension and enrichment opportunities. The acceleration activities in Scope 1.3BE, 1.5D increase in rigor and complexity. Students engage in an activity called "Math Today—Celebrating Pigs!" which requires them to solve problems and demonstrate their thinking. After watching a video about pigs, students answer related questions such as, "Write a number sentence showing how much more Oliver weighed than Otis." Within each "Explore" section, the materials provide extension questions. For example, in "Explore 5," the challenge question states, "For a challenge, ask students to write their own problem involving an unknown start. Then have another student solve their problem."

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 1.3BCE, 1.5D: Add and Subtract to 10. In this scope, students "Use objects and pictorial models to solve word problems involving joining, separating, and comparing sets within 20 and unknowns as any one of the terms in the problem such as 2 + 4 = [ ]; 3 + [ ] = 7; and 5 = [ ] – 3. (Mastery of this standard is developed through the following scope: Add and Subtract Within 20.)" The third scope is Scope 1.3D, 1.5EFG: Addition and Subtraction Strategies. In this scope, students are expected to apply strategies from the previous scopes to add and subtract numbers within 20 to "determine the value of an unknown number in an addition or subtraction problem" and "Represent word problems involving addition and subtraction of whole numbers up to 20 using concrete and pictorial models and number sentences (only within 10)."

The materials provide a "Course Rationale" describing the connection between scopes within the grade 1 curriculum. For example, the "Grade 1 Course Rationale" states, "Each scope in Grade 1 STEMscopes Math is carefully crafted to build on previous knowledge, ensuring a seamless transition between concepts as well as fostering a deep, comprehensive understanding of mathematics. This structured approach prepares students not only for future mathematical challenges but also for applying their knowledge to real-world situations."

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

The materials provide a vertical alignment overview within each scope. For example, in Scope 1.3F, 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 addition and subtraction problem solving. In second grade, students generate and solve problem situations within 1,000 when given an addition or subtraction number sentence. They also solve problems with an unknown that may be any of the terms in the equation. Third graders solve one- and two-step problems involving addition and subtraction within 1,000 with fluency by using pictorial models, number lines, and equations. In fourth grade, students add and subtract whole numbers and decimals to the hundredths.

They represent problems in which they add, subtract, multiply, or divide whole numbers, with a letter that represents an unknown quantity, by using strip diagrams and equations. Fifth graders continue to use their knowledge of addition and subtraction while also estimating to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division."

The materials provide vertical alignment through the use of big ideas. For example, in Scope 1.3F, addition and subtraction strategies include pictorial models, number lines, diagrams, and "Part-Part-Whole." In Explore 1, students are expected to solve addition and subtraction word problems. The instructions state: "Assign each pair to a Circus Circuit Card, and instruct them to read and discuss how they can solve the problem. Provide reading assistance as needed. They may use any strategy they like, including manipulatives, pictorial models, number lines, or diagrams." Lessons in Scope 1.2BC, 1.3A, 1.5ABC build on students' knowledge of addition and subtraction strategies to introduce addition with place value. In grade 2, the same strategies are used in Scope 2.4AB. Explore 1 uses manipulatives and place value for students to add two-digit numbers. For example, the lesson instructions include questions such as "What do you already know about addition and place value?" and instructions such as "Place students into 6 groups, and assign each group a basket to begin their exploration. Give students a few moments with their groups to discover the manipulatives and experience how they work."

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 1.2BC, 1.3A, 1.5ABC, students use place value to compose and decompose numbers, describe number relationships, and add numbers. For example, students use Base 10 blocks to represent numbers as a collection of 10s and 1s. For example, Explore 5 asks: "How can you represent this number in groups of tens and ones?" In grade 2, students will use Base 10 blocks to represent numbers as a collection of ones, tens, and hundreds. Embedded teacher support states, "Students continue to build on this concept as they extend their understanding of composing and decomposing numbers. Second graders continue to develop their understanding of place value, but advance to include numbers through 1,200. They use the relationships of place value to determine a number that is 10 or 100 more or fewer than a number up to 1,200. In third grade, students compose and decompose numbers up to 100,000 while also extending their representations to expanded notation. Fourth graders extend their knowledge of place value to the 1,000,000,000 place with whole numbers and decimals to the hundredths place. In fifth grade, students represent numbers to the thousandth place."

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

The materials include prompts to connect concepts within the current grade level and future grade levels. For example, in Scope 1.6GH, fractions are introduced to students. The lesson begins with a series of questions, including "What do you already know about shapes and fractions?" The following lesson begins by asking students, "What do you already know about halves and fourths that could help you prepare the crackers?" Students are introduced to vocabulary that will be used in later grades, such as "partition, equal, and fair." For example, a discussion question asks the following: "What is important to remember when we partition shapes into equal parts?" The "Coming Attractions" section of "Content Support" states, "In second grade, students continue building their knowledge of fractions by including eighths in addition to halves and fourths. They recognize that halves, fourths, and eighths may be shown to have equal areas but do not have congruent parts. Students learn to count fractional parts beyond one whole by using concrete models, and they recognize the relationship between the number of equal parts and the size of the parts. In second grade, just as in first grade, students name fractions using words, not fraction notation."

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 1.7ABCD, Length, the Spiraled Review offers questions that address graphing, two-dimensional shapes, addition, and fractions. For example, question 1 asks, "Two kids from Joseph's class were absent on Monday, 3 kids were absent on Tuesday, and 3 kids were absent on Wednesday. Finish the graph below to show this data."

The materials provide a daily review of addition and subtraction skills. For example, in Scope 1.3F, Addition and Subtraction Problem Solving, the Suggested Scope Calendar lists a daily warmup of "Fact Fluency: Addition and Subtraction." The skills provide students with games and problem scenarios to solve using addition and subtraction strategies.

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, Scope 1.2BC, 1.3A, 1.5ABC, Compose and Decompose Numbers to 120, address place value, standard form, and expanded form of numbers to 120. In Explore 1, manipulatives are given for students to count in groups of 2, 5, or 10. In Part II, the manipulatives are counted by groups of 10. In Explore 2, standard and expanded forms are used to represent numbers. In Explore 3, relationships of 10 more and 10 less are used to solve word problems. In Explore 4, place value is used to compose and decompose numbers in different ways. In Explore 5, place value is used as a strategy for addition and subtraction. These skills are later used to count coins in Scope 1.4ABC, Money, when students use number relationships to count the value of groups of pennies, nickels, and/or dimes.

The materials provide interleaved practice opportunities for students to practice skills and concepts. For example, Scope 1.8ABC introduces data collection and analysis within bar graphs and picture graphs. Skills and concepts from other scopes are present in the Skills Quiz in Scope 1.8ABC as well. For example, in Scope 1.3BCE, 1.5D, Scope 1.3BE, 1.5D, and Scope 1.3D, 1.5EFG, students are introduced to addition and subtraction strategies, including adding manipulatives, "Part-Part-Whole," and writing equations. In Scope 1.8ABC, Data Analysis, data is given to students to create graphs, and questions are asked about the data within picture and bar type graphs. Students select a strategy to answer the questions and

create the graphs. For example, Scope 1.8ABC's Skills Quiz asks students, "How many more squares were used than circles?"

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 1.3F, the "Fluency Builder" matching game allows students to interpret, analyze, and evaluate different pictorial models and match them to written questions. For example, one question in the match game asks, "Mrs. Green's class has 17 students. There are 8 boys and the rest are girls. How many girls are in Mrs. Green's class?" Students will find and match the appropriate pictorial model to this question.

In Scope 1.3BCE, 1.5D, the "Fluency Builder" matching game allows students to interpret, analyze, and evaluate different pictorial models and match them to equations. For example, one card is the game "Go Fish!" The game has the equation 4 + 4 + 2 = 10, and students search for a pictorial model to match the equation.

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 1.3BCE, 1.5D, students use manipulatives, models, pictorial representations, and written equations to add and subtract. The materials state, "Instruct students to read the Task Card out loud to their group or provide reading assistance as needed. As they are reading, have students use the centimeter cubes and Puppy Ten Frame to build a concrete model of the problem. Give each student a Student Journal. Ask students to record a pictorial model of their ten frame. Then, have them write a number sentence and the solution to the problem."

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 Scope 1.4ABC, students use models to count a collection of coins. The materials state, "Divide the class into five groups and assign each group to a station. Instruct students to take the coins out of the bag. They will line up the coins on the dry-erase board in order from greatest value to lowest value. Using a dry-erase

marker, they will skip-count the value of each coin by twos, fives, or tens and write the values under the coins. They may use a hundreds chart to help them if necessary. Give each student the Student Journal. Ask students to draw each coin as a circle with the first letter of the coin name written inside. Students should show their skip-counting strategy under each coin while making sure to start with the greatest coin value and ending with the lowest coin value. They will record the total value of the collection of coins using the symbol appropriately."

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

In Scope 1.6ABCDF, Explore 1 and 2, students are introduced to the names and attributes of two-dimensional shapes, such as squares, triangles, circles, and rectangles. In Explore 5, they apply this understanding by composing and creating new shapes using pattern blocks. The materials instruct teachers to distribute Student Journals and pattern blocks, pair students, and allow time for exploration with the manipulatives. Students then read patchwork design descriptions in their journals, use the pattern blocks to recreate each design, and draw their composed shapes in the journal before proceeding to the next description. Although trapezoids are included among the manipulatives, students are not expected to identify them by name at this grade level.

The materials provide opportunities for students to apply their conceptual understanding to solve new problems and transfer knowledge to different contexts. For example, in Scope 1.7ABCD, students explore the concept of length in Explore 2. The lesson instructs students to use measurement tools at their station to measure three objects listed in the Student Journal. Before measuring, students estimate how many units of the tool will be needed, then measure the actual length, and compare the results. The teacher may clarify that length refers to the longer side of an object, while width refers to the shorter side.

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 fluency and automaticity students need for grade-level math. For example, in Scope 1.3D, 1.5EFG, students can play an interactive, small-group game, "Fluency Builder—Solve for the Unknown Number," that allows them to solve addition and subtraction equations to develop automaticity. Twelve game cards are organized into three category groups. Students take turns to select a card, solve the addition or subtraction problem, check the key for accuracy, and record their response on their Student Recording Sheet. If they answer correctly, the student keeps the card. The student with the most cards wins the game.

In the 1st Grade Scope, Addition and Subtraction Problem Solving in the Elaborate Tab, teachers receive two "Fluency Builders": one where students play a matching game, and the other where they play "Go Fish!", matching problem scenarios with number sentences, number line representations, or "Part-Part-Whole" models.

In grade 1, students are able to increase their fluency and automaticity of addition and doubles facts by using an online assessment. For example, in the category of "Doubles," students are given 25 online questions such as "6 + 6 = __," "__ = 8 + 8," or "__ = 9 + 9." Students are provided immediate feedback on whether their answers are correct by receiving a red or green dot after answering each math equation. After answering the set of questions, the students receive a final percentage grade.

The materials include tasks that build student automaticity with grade-level math skills. For example, in the Addition and Subtraction Strategies unit, the Interactive Practice "Pinata Party" is a digital game where students use a number line to add two numbers to make 10. In the same unit, the "Show What You Know—Part 1: Basic Fact Strategies: Use 10 for Addition" gives students further practice applying what they learned by making groups of 10 to solve problems in two different ways using the Student Handout.

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

The materials provide efficient, flexible, and accurate mathematical procedures throughout learning pathways. For example, students explore addition and subtraction by composing and decomposing numbers first. Students use manipulatives, pictorial models, and equations to represent ways to compose and decompose numbers. Later, students apply this knowledge to solve addition and subtraction problems using manipulatives, pictorial models, and equations. For example, in Scope 1.3BCE, 1.5D, students solve addition and subtraction problems. The teacher guidance states, "Instruct students to read the task card out loud to their group or provide reading assistance as needed. As they are reading, have students use the centimeter cubes and Puppy Ten Frame to build a concrete model of the problem." Later, the guide states, "Journal. Ask students to record a pictorial model of their ten frame. Then, have them write a number sentence and the solution to the problem." At the end of the lesson, students reflect on their problem-solving process with questions such as "Explain the relationship between the model you built and the strategy you used to solve the problem."

The materials provide efficient, flexible, and accurate mathematical procedures throughout learning pathways. For example, students explore numeracy by representing numbers using objects, pictorial models, and then numerals. Later, students use the same model to compare numbers. For example, in Scope 1.3D, 1.5EFG, students expand their knowledge of addition and subtraction strategies. The teacher guidance for Explore 1 and Explore 2 uses the "Make 10" strategy to add and subtract. The lesson states, "Instruct student pairs to come up to the 'orders table' and choose one lemonade order from the plastic cup to complete correctly and quickly. Encourage students to think of the fastest way to add the two ingredients by having them make a 10 with the rekenrek.

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

The materials provide opportunities for students to evaluate the efficiency, flexibility, and accuracy of mathematical representations throughout learning pathways. For example, in Scope 1.3F, students are encouraged to use multiple strategies to solve addition and subtraction problems. The materials provide teacher guidance to help students reflect and evaluate models and strategies using questions: "What problem-solving strategy did you feel was the easiest to use when solving the problems today? Why? Did you choose a different way of solving, depending on the problem? Give me an example of two problems you solved using two different strategies."

The materials provide opportunities for students to evaluate the efficiency, flexibility, and accuracy of mathematical representations throughout learning pathways. For example, in Scope 1.3BE, 1.5D, students are encouraged to use strategies of their choosing to solve addition and subtraction problems. The materials provide teacher guidance to help students evaluate models and strategies used. The

teacher guidance states, "What is another way to solve this problem? Discuss the strategies used and why different strategies worked."

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

The materials provide teacher guidance to help students select increasingly efficient approaches to solve math problems. For example, Scope 1.3BCE and 1.5D review addition and subtraction using a variety of strategies that are increasingly efficient. Guidance in Explore 1 asks students to use ten frames to build concrete models of their problems: "Instruct students to read the Task Card out loud to their group or provide reading assistance as needed. As they are reading, have students use the centimeter cubes and Puppy Ten Frame to build a concrete model of the problem." After the first example, students are given more task cards to solve, and they will include writing equations. The teacher guidance states, "Give each student a Student Journal. Ask students to record a pictorial model of their ten frame. Then, have them write a number sentence and the solution to the problem."

The materials provide teacher guidance to help students select increasingly efficient approaches to solve math problems. For example, Scope 1.3F covers addition and subtraction. In Explore 1, students discuss the importance of knowing multiple strategies to solve problems. The teacher guidance poses questions for students to analyze each strategy and its ease of use. Questions include "What problem-solving strategy did you feel was the easiest to use when solving the problems today? Why?" and "Did you choose a different way of solving depending on the problem? Give me an example of two problems you solved using two different strategies."

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 taught both conceptually and procedurally. In Scope 1.2BC, 1.3A, and 1.5ABC, the "Content Support" section describes how students use concrete and pictorial models, such as linking cubes, to compose and decompose numbers up to 120—building conceptual understanding of place value. Procedurally, students develop strategies like expanded form by adding a multiple of 10 and a one-digit number (e.g., 70 + 4), which supports future operations involving regrouping or renaming.

The materials address concepts both conceptually and procedurally. In Scope 1.3BE and 1.5D, Explore 1, students begin with hands-on learning by using manipulatives and pictorial models to represent addition and subtraction to 20. For example, they use Double Ten Frame Mats and color tiles to build models based on Order Cards. Then, the lesson transitions to procedural understanding, guiding students to draw pictorial models and write number sentences in their Student Journals to represent their solutions.

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

The materials provide opportunities for students to use concrete objects, pictorial models, and abstract strategies across the scopes. For example, in Scope 1.3BCE and 1.5D, students learn to add and subtract within 10 by first building concrete models with centimeter cubes and a ten frame. They then draw pictorial representations and write number sentences as the abstract model to represent their solutions.

The materials offer opportunities for students to use concrete objects, pictorial models, and abstract strategies. In Scope 1.3D and 1.5EFG, students practice adding and subtracting within 20 using various methods. During the Skills Quiz, students solve equations with missing terms using abstract models—algorithms, matching pictorial representations to number sentences, and may use manipulatives as needed. For example, students compare number sentences in a table and write equations based on linking cube models.

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

The materials provide opportunities for students to connect concrete and pictorial models to abstract concepts. For example, in Scope 1.6GH, the materials include a game for students to match a pictorial representation of a fraction with a written description and an interactive game where students partition a cookie into halves or fourths for some mice. For example, the instructions for the match game state, "At the end of the game, have each player choose one match from the game to complete the Student Recording Sheet. Have students explain why the two cards are a match. Encourage students to share their responses with their groups."

The materials offer opportunities for students to create concrete and pictorial models. For example, in Scope 1.2ADEFG, students compare numbers. They begin by building numbers with concrete numbers, then move to create pictorial models. In Explore 2, the teacher guidance states, "Instruct students to begin by looking at the scorecard at their station. They will use the linking cubes and two Place Value Mats to build each number. Encourage students to discuss and compare each number." The guidance for the Student Journal states, "Draw a model of the two teams' scores. Write how many hundreds, tens, and ones are in each score. Compare the scores. Circle the team who won the game."

The materials provide opportunities for students to define and explain the relationships between concepts. For example, in Scopes 1.3BE and 1.5D, the "Math Chat" provides question stems for teachers to help students make connections. Questions include, "DOK-3 Explain the relationship between the model you built and the strategy you used to solve 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 1.7E, students tell time using both digital and analog clocks. Activities include manipulating geared analog clocks to match times on task cards, encouraging discussion, and comparison. A "Math Chat" prompts students to explain their reasoning using mathematical language, with guiding questions such as observing how the minute hand moves when the hour hand shifts from one hour to the next. The materials also support the development of academic mathematical language through visuals, manipulatives, and structured strategies. For example, in the unit Data Analysis—Explain, the Picture Vocabulary section helps students connect academic terms to their experiences. The "Procedure and Facilitation Points" guide teachers in projecting and discussing key terms (e.g., Generate Questions, Bar-Type Graph, Collect, Data) with students. Prompts foster deeper understanding and use of mathematical language: "How does this word connect to your work in the Explore section?" and "How would you say this in your own words?"

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 embed educator guidance to scaffold, support, and extend students' use of academic mathematical vocabulary in context when communicating with peers and teachers. In the unit Addition and Subtraction—Problem Solving, the Engage section's Hook, "Donating Stuffed Animals" activity, provides guiding questions to promote vocabulary use. The "Procedure and Facilitation Points" include prompts such as "What situations can be generated that involve collecting stuffed animals and addition or subtraction?" along with DOK-level questions like: "What is the given number sentence?" (DOK-1), "What types of problem situations could be generated using this number sentence?" (DOK-2), and "What do you have to consider when generating this problem situation?" (DOK-3). Suggested student responses are also provided to support teacher facilitation.

Similarly, in the Length unit, Explore 3: Measure the Same Thing with Different Units, the Student Journal prompts students to complete a chart with estimated length and actual length, followed by the sentence frame: "I used more of the . . . units to measure the length of the earthworm because . . . ." In the same lesson, the exit ticket includes an explanation prompt: "Do you think it will take more small or large paper clips to measure the length of the fork? Explain."

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

The materials embed guidance to support the application of appropriate mathematical language and academic vocabulary in student discourse. For example, in the unit Compare and Order Numbers to 120, Explore 4: Order Numbers, the "Math Chat" prompts educators to invite students to share their observations and learning. Sample questions include, "Which number did you place first on the number line at Station 1? Why? Which number did you place last? Why? How did you know where to place the number 35 in Station 5?" To deepen mathematical discourse, teachers are also guided to implement a "Structured Conversation Routine" to facilitate the question, "What strategies did you use as you plotted numbers on an open number line?"

The materials offer language support to help students use academic vocabulary in context within lessons. For example, in Scope 1.2ADEFG, students compare and order numbers through structured discourse during a "Math Chat." Sample questions include, "How do you know if a number is less than, greater than, or equal to another number?" (DOK-3); "What tools can you use to compare numbers?" (such as a number line, hundreds chart, linking cubes, or Place Value Mat) (DOK-2); and "If a number has 6 tens and another has 8 tens, which number is greater?" (DOK-2). The materials also provide scaffolded language support to guide peer conversations. For instance, teachers are provided with sentence structures such as: "I know that . . . is greater than . . . because . . . ," "I know that . . . is less than . . . because . . . ," and "I know that . . . is equal to . . . because . . . ." This embedded guidance supports students in applying appropriate mathematical language and academic vocabulary in their discussions.

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

The materials provide prompts and guidance for educators to facilitate math discussions. In Scope 1.3BCE and 1.5D, students participate in a "Math Chat" to discuss solving addition and subtraction equations using the "Part-Part-Whole" model. Sample questions include: "How did you use the 'Part-Part-Whole' Work Mat to solve the problem? Were you looking for a part or the whole? How do you know? Was there only one way to write the number sentence? Explain." Suggested student responses help guide the conversation and reinforce understanding.

The materials include embedded guidance to facilitate mathematical conversations, allowing students to hear, refine, and use math language with peers. For example, in the unit Compose and Decompose

Numbers to 120, Explore 4: Compose and Decompose in More Than One Way, educators lead a "Math Chat" using prompts: "How did you represent the number of carrots with linking cubes?" (DOK-2); "What is another way to represent the number of carrots?" (DOK-3); "Were you able to decompose any numbers into only groups of 10? Why or why not?" (DOK-3); and "When would you need to compose and decompose numbers in more than one way outside of school?" (DOK-4). A "Structured Conversation Routine" is recommended to support discussion.

5.4e – Materials include embedded guidance to anticipate a variety of student answers including exemplar responses to questions and tasks, including guidance to support and/or redirect inaccurate student responses.

The materials include embedded guidance to anticipate a variety of student answers, providing exemplar responses to support understanding. For instance, in Scope 1.8ABC, students composing and decomposing numbers to 10 receive sample responses to questions such as using a tally chart to create a bar graph, labeling graphs, and drawing conclusions from bar heights. Additionally, the materials include embedded guidance to support or redirect inaccurate student responses. In Scope 1.4ABC, common misconceptions are identified, such as difficulty recognizing coin sides, nontraditional coins, confusing coin size with value, and challenges with skip-counting mixed coin values.

In grade 1, the materials include embedded guidance to anticipate a variety of student responses, offering exemplar answers and strategies to support or redirect inaccurate ones. For example, in the Compose and Decompose Numbers to 120 unit, the Engage-Hook Picking Strawberries section's "Procedure and Facilitation Points" provide questions, such as "What information do we know?" with sample responses about baskets containing 98, 60, and 102 strawberries. Another question asks, "How can you compose the number 98 in two different ways? How do you know it still equals 98?" with exemplar answers like "9 tens and 8 ones" or "8 tens and 18 ones," explaining that the total number of linking cubes remains the same despite different arrangements.

5.5 Process Standards Connection

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

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

The materials integrate the TEKS "Mathematical Process Standards" within each scope. For example, in Scope 1.6ABCDF, students build knowledge of two-dimensional shapes while addressing standards such as 1.1A—applying math to real-life problems—and 1.1D—communicating mathematical ideas using multiple representations. In Explore 2, students engage in a carnival game scenario where one student describes a shape by touch while others draw it, connecting to 1.1A. The "Math Chat" supports 1.1D with questions like, “What attributes helped you figure out the shape?" and "How are a triangle and a square the same or different?" encouraging students to explain their reasoning and use precise math vocabulary.

The materials appropriately integrate the TEKS process standards in the Addition and Subtraction Problem-Solving unit. For example, Standard 1.1A is addressed as students solve real-life problems within 20, such as candy store purchases and pet feeding. Standard 1.1B is met through the use of story mats, ten frames, and manipulatives, with students planning, solving, justifying, and evaluating solutions during "Math Chats." Standard 1.1C involves selecting appropriate tools like color tiles and virtual manipulatives alongside mental math and number sense. Standard 1.1D is supported as students communicate reasoning using drawings, sentence frames, and number sentences. Standards 1.1E and 1.1F focus on creating and analyzing representations such as drawings, "Part-Part-Whole" mats, and number sentences to organize and connect mathematical ideas. Finally, 1.1G emphasizes students explaining and justifying their thinking with precise mathematical language, both orally and in writing.

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

The materials include a description of how process standards are integrated and connected throughout the learning pathways. Each unit's Home section contains "Content Supports" and an Applying "Mathematical Process Standards" section, which offers clear examples for engaging students in problem solving, reasoning, representation, and communication. For example, in the "Add and Subtract Within 10" units, standard 1.1D is addressed in Explore 3. Students survey classmates, collect data, and create bar graphs. They use tally marks to record responses and discuss as a class how to convert the tallies into a bar graph, supporting communication through multiple representations.

The materials provide an overview of the TEKS and corresponding process standards within each scope. For example, Scope 1.6EB addresses TEKS 1.6E, which focuses on identifying and describing three-dimensional solids, and includes Process Standard 1.1E, which involves creating and using representations to communicate mathematical ideas. In Explore 3, students use manipulatives and images to identify and describe rectangular and triangular prisms. Teacher guidance includes questions such as "What is the name of this solid?," "How are these two solids alike?," and "How are they different?" to check for understanding. In Explore 4, students examine rectangular prisms and cubes by comparing their attributes and describing their similarities and differences. Students explore how these solids are alike in terms of number of faces, edges, and vertices, and how they differ, such as a cube having all square faces. These activities demonstrate alignment between the TEKS content and process standards through hands-on exploration and structured mathematical discourse.

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

In grade 1, Addition and Subtraction Strategies, "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, "1.1A Apply mathematics to problems arising in everyday life, society, and the workplace: Students apply addition and subtraction strategies in everyday life, society, and workplace situations, such as completing customer orders as a barista, catching a cookie thief, being a waiter/waitress, or going camping."

The materials include an overview of the TEKS process standards incorporated into each lesson. For example, in the unit Compare and Order Numbers, Explore 2 lists the addressed standards: applying math to real-life problems (A), selecting appropriate tools and techniques . . . (C), communicating ideas using multiple representations (D), creating and using representations to organize and share ideas (E), . . . and displaying and justifying mathematical reasoning with precise language (G).

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 various opportunities to apply mathematical thinking and make sense of mathematics through productive struggle. In Scope 1.3BE, 1.5D: Add and Subtract Within 20, students represent addition and subtraction problems using concrete models and visual tools. With teacher support, students are encouraged to persevere through problem solving. For example, teachers are guided to have students read Task Cards and model problems using Double Ten Frame Mats and counters. Teachers offer support by reading cards aloud and prompting discussion about what is known and what needs to be solved. Guiding questions include: "Can you put this problem into your own words? What information were you given? What are you trying to find out? What can we do to model this on the Double Ten Frame Mats?" Students also engage in structured "Math Chats" that promote reasoning and communication. For instance: "Have two students share different strategies and discuss their similarities and differences. Why did both strategies work? Can you use both addition and subtraction to solve the same problem? How?" These tasks support conceptual understanding by allowing students to represent problems in multiple ways and justify their thinking through meaningful discussion.

The materials provide opportunities for students to think mathematically, persevere through problem solving, and make sense of mathematics. In the "Add and Subtract Within 10" unit, the Elaborate section features a "Fluency Builder" activity titled "Add and Subtract Within 10" with Pictorial Models and Number Sentences. In this activity, students play a "Go Fish!"-style game where they match number sentence cards (e.g., 3 + 5 + 2 = 10) with corresponding pictorial model cards. This task supports mathematical thinking by requiring students to demonstrate understanding that both the equation and the pictorial model represent the same mathematical idea. Students must analyze, compare, and justify their choices, reinforcing the connection between visual and numerical representations. To conclude the activity, students write or draw the matched pairs and explain how they knew the cards were a match, providing an opportunity to justify their reasoning and deepen their conceptual understanding.

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 1.6ABCDF, during the Hook—Shape Sort, the "Procedure and Facilitation Points" in Part II: Post-Explore Step 4 include targeted questions to promote this understanding. Educators are prompted to ask, "DOK-3: How did Martha sort her shapes?" and "DOK-3: How did Kim sort her shapes?" to highlight different problem-solving methods. To deepen the explanation, students are asked, "DOK-3: The shapes in each group do not look the same, so how do you know they go together?" Finally, the question, "DOK-3: What is a different way each girl could have sorted the shapes?" encourages students to justify that multiple valid approaches exist for completing a task. These prompts guide students to reflect on strategies, evaluate reasoning, and recognize the flexibility in mathematical thinking.

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 Addition and Subtraction Problem-Solving unit, during the Explore—Explore 2: Generate Problems lesson, the "Procedure and Facilitation Points" section guides teachers to have students work in pairs to solve and create word problems. As they work, students respond to guiding questions such as, "What type of problem situation do you think will match this number sentence?" and "Do you think this problem requires joining and separating, comparing, or something else?" These prompts encourage students to explore different problem types and justify their thinking. Additionally, teachers are instructed to have students act out the story problems they create to ensure each is solvable, allowing students to discover their methods and validate their reasoning. This supports the development of 1.3F, as students explore various solution paths and justify their approaches to 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 discussion. In Scope 1.7E: Time, students engage in hands-on activities and collaborative learning to practice telling time with educator support. Teacher guidance includes modeling with demonstration clocks, guiding students to identify and manipulate the hour hand, and asking questions that promote discussion and reflection. In Part II, students work in pairs to match analog clocks with written times, explaining their reasoning as they sort. This encourages mathematical conversation and provides teachers with insight into student thinking. The lesson concludes with a written checkup, where students explain how the hour hand helps them tell time. This final task reinforces learning through written reflection, combining hands-on practice, peer dialogue, and writing to support a comprehensive understanding of time concepts.

The materials provide opportunities for students to demonstrate their mathematical understanding through discussion and reflection. In Scope Add and Subtract Within 20, Explore 1: Join and Separate—Result Unknown, teacher guidance includes a "Math Chat" where students share strategies, explain their thinking, and reflect on their learning. Students discuss the strategies used for addition and subtraction, make connections between models and problem-solving methods, and reflect on mistakes to deepen their understanding. This supports mathematical communication, collaborative learning, and metacognitive growth.

6.2 Facilitating Productive Struggle

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

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

The materials include educator guidance to support students in explaining their thinking, as well as generating and justifying mathematical arguments. For example, in Scope 1.3BE and 1.5D, students solve addition and subtraction problems within 20. During the "Math Chat," students explain their thinking with teacher prompts such as, "Describe the relationship between your number sentences and your model." Students might respond, "Each of the different color counters represents a part in my number sentence. One color represents one part, and the other color represents the other part. I noticed that I can find the whole in my number sentences by counting all the counters." When asked, "What strategy did you use to solve the first problem?" a student could say, "I put 10 counters on the ten frame. Then, because I needed 18, I counted on until I got to 18." Students justify their reasoning in a structured conversation guided by the teacher, who asks, "What is another way to solve this problem?" This invites discussion about different strategies and why they work. For instance, a student might explain, "I can put 18 counters on the ten frame. Then I can cross off 10 counters to find the part that was missing."

The materials provide educator support to facilitate student reflection. For example, in Scope 1.3F: Addition and Subtraction Problem Solving, students compare numbers up to 20. Educators guide reflection through structured conversations such as, "What does your pictorial model show me?" Students might respond, "An elephant is playing with some yellow and green rings, so I drew 8 green circles and 12 yellow circles to represent the rings." Students support their reasoning during teacher-led discussions with questions like, "What strategy did you use to solve?" with answers such as, "I used a number line, began at 8, and hopped 12 hops. I landed on 20." Educators also facilitate reflection during the "Math Chat," asking questions like, "What problem-solving strategy did you feel was the easiest to use when solving the problems today? Why?"

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

The materials provide consistent guidance for educators to deliver explanatory feedback based on student responses and anticipated misconceptions. Each scope includes a "Misconceptions and Obstacles" section within the "Content Support" document. In Unit 1.3BE and 1.5D: Add and Subtract Within 20, misconceptions include misunderstanding the equal sign as an action rather than a symbol of balance, believing addends must appear in a fixed order, and relying on memorized facts rather than

exploring strategies. Students may also struggle to interpret subtraction as comparison or distance. To address these, the materials recommend using concrete models, such as counters and ten frames, and having students act out problem situations.

Instructional support in Explore 5: Start Unknown provides teacher prompts for students who struggle with writing equations. Educators are guided to model joining and separating problems using color counters and double ten frames, explicitly showing how to represent known and unknown parts.

In Scope 1.3D and 1.5EFG: Addition and Subtraction Strategies, instructional support addresses the misconception that fluency is achieved only through memorization. Teachers are guided to model strategies like "making ten" using double ten frames and to ask targeted questions such as "What numbers make 10?" and "What number do you add to 10 to find the total?" These prompts encourage strategic thinking and support conceptual understanding.

The materials also include sample student responses and suggested feedback. For example, in the "Add and Subtract Within 20" unit, teachers observe students using counters on ten frames and ask guiding questions like, "Will you need 1 or 2 ten frames? Why?" to prompt reasoning and identify errors in representation.