MIND Education

English Mathematics, 1

InsightMath Texas Grade 1

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Full-Subject, Tier-1	**9781606653708**	**Both Print and Digital**	**Static**

Rating Overview

TEKS SCORE	ELPS SCORE	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	100%	0	Flags Not in Report	Flags in Report	0

Quality Rubric Section

RUBRIC SECTION	RAW SCORE	PERCENTAGE
1. Intentional Instructional Design	28 out of 28	100%
2. Progress Monitoring	25 out of 26	96%
3. Supports for All Learners	27 out of 27	100%
4. Depth and Coherence of Key Concepts	19 out of 19	100%
5. Balance of Conceptual and Procedural Understanding	41 out of 41	100%
6. Productive Struggle	22 out of 22	100%

Breakdown by Suitability Noncompliance and Excellence Categories

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

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

IMRA Quality Report

1. Intentional Instructional Design

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

1.1 Course-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.1a	All criteria for guidance met.	4/4
1.1b	All criteria for guidance met.	2/2
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**	12/12

1.1a – Materials include a scope and sequence outlining the TEKS, ELPS, and concepts taught in the course.

In the *Program Overview Guide*, the "Standards" section contains "Texas Essential Knowledge and Skills Content Standards" and "Texas Essential Knowledge and Skills Mathematical Process Standards" sections that organize the TEKS into Algebraic Reasoning, Data Analysis, Geometry, Number Operations, and Personal Financial Literacy. It outlines the TEKS and concepts taught in each unit throughout the instructional year. Additionally, there is an "English Language Proficiency Standard" section that organizes the ELPS into Listening, Speaking, Reading, and Writing and outlines the ELPS taught in each unit throughout the instructional year.

The materials include a yearlong *Scope and Sequence* of concepts for instruction, showing the order these concepts occur throughout the grade level from Unit 0 to Unit 11.

1.1b – Materials include suggested pacing (pacing guide/calendar) to support effective implementation for various instructional calendars (e.g., varying numbers of instructional days–165, 180, 210).

In the *Program Overview Guide*, the "Pacing Details" section in the "Pacing" section outlines the concepts and the suggested pacing for each unit. It includes a drop-down menu that further breaks down the pacing of each component. The materials provide a varied number of instructional days, between 166 and 178.

The grade 1 "Pacing Suggestions" include a 165-day pacing calendar to accommodate a modified school year while still fully covering each unit.

1.1c – Materials include an explanation for the rationale of unit order as well as how concepts to be learned connect throughout the course.

In the "Mathematics" section for each unit, the "Conceptual Understanding" section provides explanations about the logic behind unit progression and how students use previously learned skills to build on their understanding. For example, in Unit 4, the "Conceptual Understanding" section notes that "Students build on their kindergarten experiences of organizing objects into groups of 10 to understand that our number system is structured around place value."

The "Mathematics" section also contains a "Coherence" section that outlines what students learned previously, what they will learn in the current unit, and how the concepts will be used in future units. For example, in Unit 4, the "In the Future" section notes that "Students will immediately apply their place value understanding in Unit 5 when breaking apart and combining numbers to use efficient strategies like make a ten. In Unit 8, students will strengthen their work with two-digit and three-digit numbers, using place value to compare numbers up to 120 and showing numbers in standard and expanded form."

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

At the beginning of each unit, the "Schema Building" section explains the Big Ideas within the unit with corresponding guidance for unit and lesson internalization. For example, in Unit 3, the "Schema Building" section clarifies that "In this unit, students expand their schema of measurement and spatial reasoning as they formally encounter length as a measurable attribute. Students move from direct comparisons to indirect comparisons, and finally to quantifying length through iteration of nonstandard units." Additionally, in the "Mathematics" section for each unit, the "In This Unit" section provides a more detailed explanation of the concept progression through the unit.

Each lesson contains questions, an overview, objectives, vocabulary, preparation for the lesson, standards, differentiation ideas, and a preview of the lesson slides. For example, in Unit 3 Lesson 3, the "Differentiation" section supports language and the "understanding of the new vocabulary (*height*, *taller*, *tallest*) by annotating the on-screen visuals when the words are introduced during the discussion."

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

The Digital Help website includes leader-specific documents focused on leading implementation across a campus, as well as planning ongoing professional development.

The "Supporting Teachers" section provides resources for effective implementation of the program and explains how to use the resources.

The "Support for District Level Leaders" section provides guidance for effective implementation of the program and explains how to structure the timeline to ensure instructional leaders understand the materials and are prepared for implementation.

The help desk contains various links for teachers, school leaders, and district leaders. For example, the help desk has articles to support teachers, students, and rostering.

1.2 Unit-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.2a	All criteria for guidance met.	2/2
1.2b	All criteria for guidance met.	2/2
—	**TOTAL**	4/4

1.2a – Materials include comprehensive unit overviews that provide the background content knowledge and academic vocabulary necessary to effectively teach the concepts in the unit.

In the "Mathematics" section, the "Coherence" section establishes connections between previously learned concepts and strategies. This section references where a topic was first introduced and outlines both the background knowledge teachers need to deliver the unit and what students need to understand it. For example, in Unit 10, the "Coherence" section clarifies that "In kindergarten, students identified and sorted basic two-dimensional and three-dimensional shapes based on visual appearance. They recognized circles, triangles, squares, rectangles, hexagons, and common solid shapes like cubes, cones, cylinders, and spheres. They discovered that shapes maintain their identity regardless of orientation or size. This informal exploration provided the foundation for more systematic shape analysis in grade 1 based on defining characteristics."

The materials provide the teacher with the academic vocabulary necessary to understand the concepts in each lesson within the unit. The academic vocabulary is listed in the intro of each lesson, below the questions, overview, and objectives. For example, in Unit 6: Lesson 3, the academic vocabulary is *picture graph* (new), *category*, *data*, *fewer*, *fewest*, *label* (noun), *more* (adjective), and *most*.

1.2b – Materials contain supports for families in both Spanish and English for each unit with suggestions on supporting the progress of their student.

The *Family Guide* provides strategies and activities in both English and Spanish so families can support students' learning and development at home. In Unit 11, the *Family Guide* suggests using "Sharing Food" to practice portioning food at home into two and four equal parts.

The *Family Guide* lists the objectives of the unit and provides suggestions for how families can support student progress and achievement. In Unit 11, the "Helpful Hints" section provides advice, such as "Sometimes students say that a shape is split into halves because there are 2 parts or fourths because there are 4 parts, regardless of whether each part is equal in size."

1.3 Lesson-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.3a	All criteria for guidance met.	8/8
1.3b	All criteria for guidance met.	3/3
1.3c	All criteria for guidance met.	1/1
—	**TOTAL**	12/12

1.3a – Materials include comprehensive, structured, detailed lesson plans that include daily objectives, questions, tasks, materials, and instructional assessments required to meet the content and language standards of the lesson (aligned with the TEKS and the ELPS).

The lesson plans include daily learning and language objectives for each lesson aligned to the TEKS and ELPS. For example, in Unit 8: Lesson 7, the content standards are "1.2E (use place value to compare whole numbers up to 120 using comparative language)" and "1.2G (represent the comparison of two numbers to 100 using the symbols for greater than, less than, and equal)." The lesson objectives state that students will "use place value understanding to compare two two-digit numbers" and "select the appropriate comparison sign to show the relationship between two two-digit numbers in more than one way." ELPS.2.B—"Speak using content-area vocabulary during formal and informal classroom interactions to demonstrate acquisition of new words and high-frequency words"—aligns to the stated language objective, that students will "compare numbers using content-specific language in context and support their ideas with valid reasoning and evidence using feedback to revise their understanding as necessary."

The questions in the lesson plans check for understanding of lesson objectives and promote the use of language to meet language objectives. The tasks promote mastery of the lesson objectives. For example, in Unit 11: Lesson 7, the language objective is to "explain how to measure time using the hands on a clock to represent the time to the hour, both verbally and written and using both analog and digital." The "Discourse Questions" within each lesson meet the stated ELPS, such as "What time does this clock show? How do you know?" The "Discourse Questions" also check for understanding of the content objective to tell, show, and write time to the hour.

The lesson plans include lists of materials to support instructional activities and a reference on how the teacher will assess mastery of the content standards. For example, in Unit 2: Lesson 10, the "Preparing for the Lesson" section lists the necessary materials, including connecting cubes, two-color counters, colored writing utensils, a word problem mat, double ten frames, pages from the *Playbook*, and pages from the *Practice Book*. The assessment is listed at the end of the lesson and includes "Look Fors" and "Discourse Questions" to assess understanding. In addition, the *Unit Guide* includes an "Assessment Guide" for "Diagnostic Assessments," "Summative Assessments," and "Formative Assessment Opportunities."

1.3b – Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson, and the suggested timing for each lesson component.

The overview contains a list of teacher and student materials. For example, in Unit 3: Lesson 9, in the "Preparing for the Lesson" section, the "Prep Notes" section tells the teacher to prepare to use the sticky note measuring tools that students created in Lesson 7. In addition, the "Prep Notes" section provides a list of required materials, game assignment, templates, and "Practice Pages."

The materials include suggested timing of lesson components, listed at the beginning of the lesson and within each section. For example, in Unit 2: Lesson 4, the suggested timing is seven minutes for "Launch," 17 minutes for "Explore," six minutes for "Reflect and Connect," and 15-plus minutes for "Workshop Time."

1.3c – Materials include guidance on the effective use of lesson materials for extended practice (e.g., homework, extension, enrichment).

The materials offer strategies to adapt extended practice materials. For example, in Unit 7: Lesson 9, the "Differentiation" section contains an "Extension" section with suggestions for extending the lesson on modeling and solving unknown-start word problems by challenging "students to create and solve an unknown-start word problem that can be modeled by subtraction."

The "Explore" section provides tips on the effective use of lesson materials for extended practice. In Unit 7: Lesson 1, the "Extension" section in the "Explore" section challenges "students to show the problem using a different model and to explain how the model represents the problem."

2. Progress Monitoring

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

2.1 Instructional Assessments

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.1a	All criteria for guidance met.	9/9
2.1b	All criteria for guidance met.	2/2
2.1c	All criteria for guidance met.	2/2
2.1d	All criteria for guidance met.	6/6
2.1e	All criteria for guidance met.	2/2
—	**TOTAL**	21/21

2.1a – Materials include a variety of instructional assessments at the unit and lesson level (including diagnostic, formative, and summative) that vary in types of tasks and questions.

"Diagnostic Assessments" with a variety of question types and tasks (including problem-solving tasks, concrete representation, fill-in-the-blank, and real-world application questions) determine students' readiness for new mathematical concepts. For example, in the Unit 4 "Diagnostic Assessment," students use a variety of pictorial representations to identify and write the correct number, fill in the missing numbers on a path, complete number bonds and equations, and solve a real-world story problems using pictorial representations and skip-counting.

"Summative Assessments" are embedded within the unit and lessons to measure mastery of all skills taught. For example, the Unit 7 "Summative Assessment" assesses student understanding of different approaches to problem-solving through a variety of tasks and questions. Students are expected to solve real-world story problems using a bar model, strip diagram, and addition and subtraction equations. In addition, students choose a strategy to solve a real-world story problem and then complete equations with the unknown in different positions. In Unit 7: Lesson 11, students are expected to model and solve additive comparison problems, identify 10 more and 10 less than a given number, and solve real-world comparison story problems using a strip diagram and an equation on the "Practice Page."

"Formative Assessment Opportunities" assess a combination of skills from each lesson cluster within the unit. For example, in the Unit 3 "Assessment" section, "Formative Assessment Opportunities" are listed for the two lesson clusters. The "Formative Assessment" opportunities come from different components within the Cluster 2 lessons. The "Formative Assessment Opportunities" provide a variety of tasks and questions as well as what to look for during each activity. For example, students estimate and identify an object that is 12 connecting cubes long, estimate the length of an object using sticky note magnets,

practice aligning a measurement tool and counting each unit, determine height from inconsistent units, and measure using nonstandard measurement tools to determine which book will fit into a given slot.

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

The materials clearly define "Diagnostic Assessments," "Formative Assessment Opportunities," and "Summative Assessments." Each unit has an "Assessment" section that provides information on each assessment type. A definition of the purpose of each assessment is at the beginning of each section. The guidance states that a "diagnostic assessment is an opportunity for students to show the foundational skills and knowledge they have previously mastered and to reveal areas in which they may need additional support to be successful in the unit."

The intended purpose is included for each assessment type and how they inform instruction, help educators and students adjust, identify misconceptions, gauge progress, and guide instructional decisions. For example, the guidance states, "The summative assessment provides an opportunity for students to demonstrate they have met the key learning objectives of the unit. The results of this assessment can provide information about successes to celebrate with students and areas where students are in need of further support. See Supporting Students after this unit for suggestions on ways to address unfinished learning."

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

Scripts ensure the assessments are administered consistently and across examiners. For example, in the Unit 4 "Summative Assessment," the teacher is expected to say, "You have learned a lot about math! These are problems for you to do by yourself so that I can see what you know. You cannot work with a partner or look at someone else's work. If you do not know how to do something, just try your best. I will read each problem aloud two times. If you want me to read it again, raise your hand."

Instructional assessments are supported by a guiding document, which gives an overview of the assessment, step-by-step guidance for administering each component of the assessment, and support for the teacher in understanding the assessments to ensure consistency and standardized administration across examiners. In the Unit 9 "Summative Assessment," the teacher directions include student seating guidance, directions to read aloud, how to help students locate the current problem, steps to ensure students are ready for the next question or to hear the second reading of the question, and which vocabulary words the teacher can provide support for. For example, the last step of the teacher directions is "define or show examples of non-mathematical words related to the context of the problems (e.g., apples, playground, buy, fly away) but do not define or show examples of mathematical words (e.g., add, count, length, triangle)."

2.1d – Diagnostic, formative, and summative assessments are aligned to the TEKS and objectives of the course, unit, or lesson.

Alignment of "Diagnostic Assessments" with the TEKS for the course are included in the "Item Map" and "Supports" at the beginning of each "Diagnostic Assessment Guide." For example, in the Unit 5 "Diagnostic Assessment Guide," the "Item Map" and "Supports" identify that Item 1 on the "Diagnostic Assessment" aligns to the TEKS 1.3C. In addition, Item 1 aligns to the objective of composing 10 that is addressed in Cluster 2 "Adding and Subtracting by Making a 10."

Alignment of "Summative Assessments" with the TEKS for the course are included, such as identifying the TEKS numbers in the "Item Map" and "Teacher Recording Sheet" at the beginning of each "Summative Assessment Guide." For example, in the Unit 11 "Summative Assessment Guide," the "Item Map" identifies that Item 1 on the "Summative Assessment" aligns to the TEKS 1.6H. In addition, Item 1 aligns to Cluster 1 "Equal Shares and Parts."

Alignment of "Formative Assessment Opportunities" with the TEKS and objectives for the course, lesson, and unit are included. The Unit 7 guidance for "Formative Assessment Opportunities" can be found under the "Assessment" section and identifies the first "Formative Assessment" from Lesson 1 "Using Strip Diagrams to Compare Amounts." Activity E1 assesses students' ability to choose a model to represent a difference-unknown comparison word problem and align to the objective to "represent difference-unknown comparison problems that have more in the description using direct representations, strip diagrams, and equations," aligning with TEKS 1.3B, 1.5D, and 1.5F.

2.1e – Instructional assessments include TEKS-aligned items at varying levels of complexity.

"Summative Assessments" with the TEKS for the course assess at different levels of complexity and include procedural tasks, fill-in-the-blank and multiple-choice questions, and application of multiple skills to problems and tasks. For example, in the Unit 8 "Summative Assessment," the questions require students to use a place value representation to solve an equation, show multiple representations of a number, circle the correct answer choice, write the correct comparison symbol between two numbers, and generate a number that is greater than or less than a given number.

"Formative Assessment Opportunities" aligned to the TEKS for the course contain procedural, open-response items and application of multiple skills to problems and tasks. For example, in Unit 2: Cluster 1, the "Formative Assessment Opportunities" require students to choose a problem-solving strategy to solve a real-world story problem, represent an equation in four different ways, and fill in an equation and number bond to represent a story problem.

2.2 Data Analysis and Progress Monitoring

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.2a	All criteria for guidance met.	2/2
2.2b	All criteria for guidance met.	1/1
2.2c	Materials provide teacher tools to track student progress and growth. Materials include class goal-setting opportunities; however, the materials do not provide student-friendly tools for students to track their own data and progress throughout units.	1/2
—	**TOTAL**	4/5

2.2a – Instructional assessments and scoring information provide guidance for interpreting student performance.

Teacher guidance is provided on how to interpret student performance on assessments and reflect on levels of understanding and/or proficiency. For example, the Unit 1 "Summative Assessment Guide" has the teacher record student responses in the following way: if the student's response matches the text in italics, they are to give a checkmark. If the student makes a mistake, they are to record the error. If the student makes a mistake and then corrects it, teachers will record the error and give a checkmark indicating a self-correction. Based on the students' responses, the teacher can then visit the "Supporting Students: After This Unit" link for suggestions on ways to address unfinished learning.

Scoring information about the student's strengths, weaknesses and gaps, and common misconceptions is included in the materials. For example, in the *Teaching Guide*, a "Formative Assessment Recording Log" allows the teacher to track mastery of cluster outcomes, barriers, and strengths and determine whether support is needed. Teachers can make notes about specific barriers and the type of support provided or needed in the future.

The "Summative Assessment Guide" contains examples of student responses to guide teachers in interpreting performance. For example, in the Unit 4 "Summative Assessment Guide," correct response examples are provided for the assessed skill of showing 24 another way, such as, "any representation that shows 24 as 24 individual units, 2 tens and 4 ones, or other combinations such as 1 ten and 14 ones."

The grade 1 materials guide teachers on how to interpret student performance on assessments and reflect on levels of understanding and/or proficiency through the "Supporting Students: After This Unit" section. For example, Unit 8 says that "by the end of the unit, students should be proficient in comparing two-digit and three-digit numbers using place value reasoning and have an introductory understanding of how to use comparison signs that represent 'greater than,' 'less than,' and 'equal' to write comparative statements." In addition, the section breaks down the different areas of struggle students may have if

they are not successful on the assessment, such as "understanding the role of 0 in three-digit numbers and applying place value reasoning to compare numbers."

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

In grade 1, the materials include guidance that supports the teacher in utilizing results from "Diagnostic Assessments" to support the purposeful planning of tasks and activities for the appropriate grade level or course. Teacher guidance for students who need additional support with the items from the "Diagnostic Assessment" is listed by item number and aligned TEKS within the "Diagnostic Assessment Guide." For example, in the Unit 5 "Diagnostic Assessment Guide," Item 1 assesses and provides guidance for supporting emerging students on composing 10 through various activities, such as, "have students make a ten stick using 5 cubes of one color and 5 of another color before breaking the ten stick and using the groups of five to determine the missing amount," which correlates to 1.3C.

Instructional guidance for tasks and activities to target various skills is included, as determined by summative assessment data. For example, in Unit 5 in the "Assessment" section, there is information for supporting students after the "Summative Assessment." For example, if students are struggling to use a near-doubles strategy fluently and appropriately, the guidance suggests to "highlight doubles and near-doubles strategies when students use them mentally or with concrete objects, and suggest students consider doubles or near-doubles strategies when struggling to calculate quickly."

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

Editable "Formative Assessment Recording Logs" allow teachers to customize and track the growth of individual students or the whole class throughout the unit. For example, the "Formative Assessment Recording Log" has an area for each student's name, whether the cluster objective was met, anecdotal notes, and if support was needed or provided.

Grade 1 materials include student-friendly class data discussions through "Our Thinking Path," which is embedded throughout units at the end of each cluster, allowing time for setting class goals recorded on chart paper to be referenced during the unit. Materials include class goal-setting opportunities; however, they do not provide student-friendly tools for students to track their own data and progress throughout units.

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 marked with a (T) refers to teacher-facing components. Guidance with an (S) refers to student-facing components.

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.1a	All criteria for guidance met.	3/3
3.1b	All criteria for guidance met.	2/2
3.1c	All criteria for guidance met.	2/2
—	**TOTAL**	7/7

3.1a – Materials include teacher guidance for differentiated instruction, activities, and paired (scaffolded) lessons for students who have not yet reached proficiency on grade-level content and skills.

The grade 1 materials guide teachers to support students' thinking within the lesson through differentiated supports, such as scaffolded questions to activate prior knowledge, sentence stems to aid students with their thinking, and visual aids and manipulatives to enhance comprehension. For example, in Unit 4: Lesson 6, there are sentence stems under the "Differentiation" section, such as "Grouping numbers into tens and ones helps me to count because _____." In addition, the guidance suggests using a sticky note to cover and reduce the amount of information so only one problem is visible at a time and suggests having the student use color to connect the models to their values.

In grade 1, the materials provide paired lessons for students who have not yet reached proficiency on grade-level content and skills. For example, in the Unit 6: Lesson 3 *Teaching Guide*, there is a scaffolded lesson for students who are misaligning data on a graph. The guidance suggests reteaching with a correct and incorrect example side by side and having the student identify the differences. The teacher then asks the student why it is important to have the data lined up correctly and then provides the student a tool, such as graph paper, to help align the data correctly.

3.1b – Materials include pre-teaching or embedded supports for unfamiliar vocabulary and references in text (e.g., figurative language, idioms, academic language). (T/S)

The materials include teaching academic vocabulary and symbols through hands-on experiences, manipulatives, or visuals. For example, in Unit 10: Lesson 4, the guidance suggests providing a visual of a sort, attribute, and equal side lengths when discussing how to sort quadrilaterals.

Lesson activity guidance includes "Discourse Questions" that support student understanding of academic vocabulary and unfamiliar references in the lesson. For example, in Unit 10: Lesson 4, the "Workshop Time" section provides "Discourse Questions" such as "What is this question asking you to do? What do you think you need to do to find the answer? Does this problem remind you of anything we have learned before?" The questions ensure students understand the question and the vocabulary needed to complete the assignment.

3.1c – Materials include teacher guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skill.

The materials include specific prompts for advanced questioning during discussions, such as asking students to justify their problem-solving strategies or compare different mathematical approaches. For example, in Unit 2: Lesson 8 under the "Differentiation" section, the "Extension" section suggests challenging students to explain their thinking beyond one problem-solving strategy and explain why they could use either addition or subtraction to find the number of race cars.

The *Teaching Guide* suggests enrichment activities, such as a project-based learning activity, research project, or creative project that synthesizes content and student learning for students who have demonstrated proficiency in grade-level content and skills. For example, Unit 8: Lesson 5, students are challenged to extend their learning from representing a number using base ten blocks to altering the number to create a different number that uses the same number of base ten blocks and showing it in many ways.

3.2 Instructional Methods

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.2a	All criteria for guidance met.	4/4
3.2b	All criteria for guidance met.	2/2
3.2c	All criteria for guidance met.	3/3
—	**TOTAL**	9/9

3.2a – Materials include explicit (direct) prompts and guidance to support the teacher in modeling and explaining the concept(s) to be learned.

Lesson materials include questioning strategies and discussion prompts, which guide teachers in clearly explaining concepts and engaging students in deeper understandings. For example, in Unit 7: Lesson 7, students are exploring a lesser-set-unknown comparison problem. "Discourse Questions" to guide the discussion, such as "What do you know? What do you not know? How can you use the word fewer to describe how many paints and brushes there are?"

The grade 1 materials include guidance to support the teacher in explaining and modeling, such as providing exemplar student responses to prompts and visuals to aid in teacher explanations. For example, in Unit 2: Lesson 1, the "Explore" section has six lesson slides that provide visuals demonstrating the doubling pattern using ten frames. There are example student responses provided for the questions. For example, the question on Slide E1 asks, "Does this model show an equal number of suns and smiley faces? How do you know?" The answer key in the teacher guidance states, "No, the model does not show an equal number of suns and smiley faces; 6 suns and 4 smiley faces."

3.2b – Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches.

Lessons include teacher guidance and recommendations for effective lesson delivery using a variety of instructional approaches, such as providing opportunities for student discourse, independent learning activities, incorporating written responses and explanations to justify thinking, incorporating hands-on explorations using math manipulatives, and connecting to real-world problems and scenarios to learn about mathematical concepts. For example, in Unit 7: Lesson 4, the materials provide an opportunity for students to explore a comparison problem with an unknown factor using a real-world problem. The materials provide "Discourse Questions" to facilitate student understanding of the concept. During the "Workshop Time," students work in their *Playbook* and discuss challenges with a partner or small group. Later in the lesson, students apply their understanding of asking questions and interpreting data to complete an independent "Practice Page."

The grade 1 materials incorporate and provide guidance on more than one instructional approach, such as direct instruction, guided practice, inquiry-based learning, collaborative learning, and exploratory

learning. For example, in Unit 3: Lesson 10, students explore different lengths and make a list of things that will or will not fit into the book return slot. The teacher uses the "Discourse Questions" to facilitate a discussion on which objects fit and do not fit. Students then work in pairs on the *Playbook* page to measure using nonstandard objects to answer the questions. Later in the lesson, students write a reflection of what they have learned about lengths.

3.2c – Materials support multiple types of practice (e.g., guided, independent, collaborative) and include guidance for teachers and recommended structures (e.g., whole group, small group, individual) to support effective implementation.

The grade 1 materials provide a variety of opportunities for students to practice and apply the concepts they learn, including individual, partnered, guided, whole-group, and small-group opportunities. For example, in Unit 8: Lesson 4, students engage in a whole-class puzzle talk. Students do a guided exploration of making new tens using real-world pictorials and virtual manipulatives. During "Workshop Time," students play a game with partners and complete an independent "Practice Page" at the end of the lesson.

Lesson plans provide teachers with guidance on structuring and implementing multiple types of practice, including explicit instructions for guided practice, opportunities for independent application, and collaborative activities. Lesson plans include notes on each lesson component and whether its recommended grouping is whole group, partners, small group, or independent. For example, in Unit 10: Lesson 8, students work in pairs with pattern blocks in the "Launch" phase. In the "Explore" section, students work as a whole class through guided practice and "Discourse Questions." In the final activity of the "Explore" section, students work with a partner. Students also work with a partner during "Workshop Time" before completing their independent "Practice Page."

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.	2/2
3.3b	All criteria for guidance met.	1/1
3.3c	All criteria for guidance met.	8/8
3.3d	This guidance is not applicable to the program.	N/A
—	**TOTAL**	11/11

3.3a – Materials include teacher guidance on providing linguistic accommodations for various 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 grade 1 materials detail ways that the teacher can build academic vocabulary as the unit progresses, including support after the unit. For example, in the Unit 6 *Teaching Guide*, the "Supporting Students" section has areas of struggle after the unit and how to continue to support students. For example, if a student is struggling to understand the data investigation process, the guidance states the teacher should, "Utilize an anchor chart and the specific names of each step as students progress through data investigations or work with data."

Lessons contain a "Differentiation" section that provides educators with guidance on incorporating multiple levels of support to help students build academic language, such as sentence stems, productive and expressive language support, and a list of words that need a visual or example. For example, in Unit 9: Lesson 10, the guidance for productive and expressive language support states, "Provide students with a list of three or four options for each form of charitable giving, one of which is an example of the concept, and ask them to identify the example." In addition, the materials provide sentence stems to support language development, such as "I can participate in charitable giving by giving [money; goods; services] to _____. I can participate in charitable giving by giving _____ to _____. I can participate in charitable giving by _____."

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

In grade 1, the materials provide embedded guidance for effective implementation through plans with specific language objectives and language supports provided through the "Differentiation" section of each lesson. For example, in Unit 2: Lesson 3, the language objective is, "Students engage in conversational exchanges about what they know and do not know in their models to understand how to solve and explain part–part–total problems when both parts are unknown." In addition, the materials further support this objective with guidance to, "Ensure students understand that the use of could means there may be more than one correct answer."

The materials provide resources on how to use the materials to support language development and acquisition. For example, in the "InsightMath Help" section for *Addressing the Needs of Special Populations in Texas*, the guidance states that teachers should use the math language routines to guide discussion and support language acquisition. In addition, the guidance lists the math language routine steps, "Revoice student ideas to model mathematical language use by restating a statement as a question in order to clarify, apply appropriate language, and involve more students. Press for details in students' explanations by requesting for students to challenge an idea, elaborate on an idea, or give an example. Show central concepts multi-modally by utilizing different types of sensory inputs: acting out scenarios or inviting students to do so, showing videos or images, using gestures, and talking about the context of what is happening. Practice phrases or words through choral response. Think aloud by talking through thinking about a mathematical concept while solving a related problem or doing a task. Model detailing steps, describing and justifying reasoning, and questioning strategies."

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

Throughout each lesson, materials provide opportunities for oral discourse through "Discourse Questions" that develop academic vocabulary, increase comprehension, build background knowledge, and make cross-linguistic connections. For example, in Unit 9: Lesson 9, students build background knowledge about income and spending, saving, needs, and wants through oral "Discourse Questions" such as, "I have been earning income. What can I do with the money?" Students then use oral "Discourse Questions" to support understanding of the words spending, saving, needs, and wants and connecting them to income such as, "What would you do if what you want to spend money on is too expensive? Why does Mateo not have enough money to buy a dog bone for Arturito? Why should Mateo buy or not buy the toy for himself? What can Mateo do with his income instead? What is something you would save money for? How can saving money now help you spend it later?" As the lesson progresses, there are oral "Discourse Questions" that check for increasing comprehension such as, "Why should Mateo spend his money on lunch instead of a toy? What would happen to you if you did not get your needs, like food?

What would happen to you if you did not get your wants, like a new toy? How do you know this is a need or want? Which of these are goods or services? How do you know? Why do people buy goods or services? What other needs and wants does your family spend money on?"

The materials include activities that require students to use written discourse to develop academic vocabulary, increase comprehension, build background knowledge, and make cross-linguistic connections. For example, in Unit 3: Lesson 2, students write their thoughts while playing an ST Math Game during "Workshop Time." The teacher uses "Discourse Questions" to support students with their thinking such as, "What do you see on the screen? What do you notice or wonder? What is this puzzle asking you to do? What do you think is going to happen when you use the Go button? What have you tried? Why did it work or not work? What did you learn from the animation after you used the Go button?" This allows students to use and develop academic vocabulary from the word wall and for the teacher to check for increasing comprehension. In addition, during the Investigation at the beginning of Unit 4, students write about how they were mathematicians and have the opportunity to build background knowledge before starting the lesson. Students are able to use the math word wall and make their own cross-linguistic connections through the open-ended "Discourse Questions" such as, "How did making mistakes help you grow as a mathematician? Where do you see shapes around you? How did creating different groups of monsters help you think like a mathematician?"

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

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

4. Depth and Coherence of Key Concepts

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

4.1 Depth of Key Concepts

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.1a	All criteria for guidance met.	2/2
4.1b	All criteria for guidance met.	1/1
—	**TOTAL**	3/3

4.1a – Practice opportunities over the course of a lesson and/or unit (including instructional assessments) require students to demonstrate depth of understanding aligned to the TEKS.

In grade 1, practice opportunities require students to demonstrate depth of understanding of place value throughout Unit 4 "Exploring Place Value Within 100." They begin with making groups to tell how many and using number bonds and place value mats to model teen numbers. Students then practice counting by tens and model, represent, and compare two-digit numbers using number bonds and place value mats. Finally, students use place value patterns to find 10 more and 10 less before modeling, representing, and comparing numbers through 120 with number bonds and place value mats.

Instructional assessments require students to demonstrate depth of understanding aligned to the TEKS over the course. For example, the Unit 4 "Summative Assessment" requires students to demonstrate understanding of Unit 4 "Exploring Place Value Within 120" through a variety of tasks and questions. Activities include representing a number or identifying a place value pattern using number bonds, equations, pictorials, skip counting, and a 120 chart.

4.1b – Questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics TEKS.

In grade 1, students work with understanding numbers in increasing complexity through the units.

Throughout the grade level, the materials are scaffolded by units as students use addition and subtraction within 10; build new approaches to problem-solving including part-part-total and active addition and subtraction word problems; use addition and subtraction to compare and measure length; use place value within 120; use addition and subtraction within 20; use problem-solving to answer questions from the data represented in graphs; continue to build on problem-solving with representing addition and subtraction problems in multiple ways; extend understanding of place value within 120 by composing, decomposing, and comparing numbers; use counting strategies and place value to count coins; use counting strategies to identify attributes; and use counting strategies to identify and write time.

In Unit 10 "Composing and Decomposing Shapes," students sort and identify 2-D shapes before exploring the relationship between sides and vertices. Students then sort and identify 3-D shapes and explore the relationship between shapes before completing the unit by composing 2-D and 3-D shapes.

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.	3/3
4.2c	All criteria for guidance met.	4/4
—	**TOTAL**	8/8

4.2a – Materials demonstrate coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts.

The materials include a unit overview that describes connections to previous units where students learned prior knowledge needed for the upcoming unit. The "Unit Overview" identifies previously learned big ideas and identifies how students will expand their knowledge of mathematical concepts. For example, in Unit 8 "Extending Place Value to 120," the "Unit Overview" notes that previously "students decomposed numbers within 120 according to place value and represented those decompositions with base ten blocks and number bonds." In this unit, students expand their place value schema by seeing numbers within 120 as the sum of various place value parts that can be seen in the expanded form of a number.

In grade 1, the materials connect understanding that numbers within 120 are composed of 10 and some more and use patterns to model numbers within 120 before expanding this understanding to representing place value addition sentences and comparing numbers within 120. For example, in Unit 4, students model numbers within 120 using place value blocks. In Unit 8, students use place value within 120 to represent place value addition sentences and compare numbers.

4.2b – Materials demonstrate coherence across units by connecting the content and language learned in previous courses/grade levels and what will be learned in future courses/grade levels to the content to be learned in the current course/grade level.

In grade 1, the materials provide a "Coherence" section within the "Mathematics" section that identifies previously learned concepts that will be used and developed in the current unit and how the concepts will be applied in the future. For example, in Unit 3 "Comparing and Measuring Length," the "Coherence" section notes that students will use understanding of direct comparison of measurement using comparative language and organizing by size, length, and height from kindergarten to now making indirect comparisons using a third object and using nonstandard measurement tools. Students will apply their understanding of measurement in grade 2 with standard units of measurement.

The materials use consistent vocabulary terms and tools year to year from kindergarten to grade 2. For example, in kindergarten, students are introduced to the terms *two-dimensional shapes* and *three-dimensional shapes*. Students sort and name the shapes. In grade 1, students continue to use the terms

two-dimensional shapes and *three-dimensional shapes* and expand their vocabulary to identify the attributes using the terms *sides*, *vertices*, *faces*, and *edges*. In grade 2, students continue using the same vocabulary when identifying shapes, composing new shapes, and decomposing shapes.

4.2c – Materials demonstrate coherence at the lesson level by connecting students' prior knowledge of concepts and procedures from the current and prior grade level(s) to new mathematical knowledge and skills.

In grade 1, a lesson on using place value patterns to build numbers within 120 includes scaffolding questions that help students bridge earlier learning to current concepts. For example, questions such as "What cubes do you see on the place value mat? How are those represented in the number? Is 1 hundred the same as 1 [ten; one]?" encourage students to apply previously learned strategies in new contexts.

At the lesson level, materials connect concepts and procedures from the prior grade level. The materials use previously learned concepts and procedures to support learning at the lesson level. For example, in Unit 6: Lesson 7 "Comparing Data Displays," students use their prior understanding of which category has the most or fewest from kindergarten to now answer questions of "How many more?" and "How many fewer?" based on the data presented.

4.3 Coherence and Variety of Practice

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.3a	All criteria for guidance met.	4/4
4.3b	All criteria for guidance met.	4/4
—	**TOTAL**	8/8

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

In grade 1, during the "Launch" section of Lesson 7 "Creating Values with Sets of Mixed Coins," students use their counting strategies to count two sets of coins to identify that two different sets of coins can have the same value before beginning the lesson on creating a set of coins to represent a value.

In grade 1, students complete an investigation on exploring base-3 before beginning Unit 8. The investigation requires students to use their prior understanding of place value and number sense on a group of monsters and monsters' eyes to answer questions about the differences between the groups and how to group eyes to get a desired total number of eyes before moving into the new concepts in Unit 8 "Extending Place Value to 120."

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

In grade 1, students practice addition and subtraction within Unit 1 "Adding and Subtracting Within 10." This grouping is reiterated in subsequent units, with the complexity increasing by incorporating greater place values. Students use place value, number paths, equations, and number bonds to solve addition and subtraction problems and engage in problem sets that require understanding word problems. Students plan whether to use an addition or subtraction strategy.

Materials prompt students to apply a previously learned concept of comparing lengths and measuring accurately to determine the length of an object in Unit 3: Lesson 9 "Using Same-Size Units to Measure Length." For example, in the "Explore" section, the teacher is prompted to ask, "Why did we need more cubes than markers to measure the length of the paper? How are you making sure your measurements are accurate? Why are all of the measurements different? Did the paper length change?"

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.	1/1
5.1c	All criteria for guidance met.	1/1
—	**TOTAL**	5/5

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

In grade 1, students interpret statements with comparison words about data in Unit 6: Lesson 7 to determine what information is missing. The teacher shows the graph and the first statement, "There are fewer students ___ than ___." Students determine what information from the graph belongs in the blanks. The teacher then displays the same graph with a new statement, "There are ___ more students ___ than ___," and asks, "What changed? What do we need to find out? How many more students chose the play structure than the jump rope? How do you know? How can you use the picture graph to find how many more students chose the play structure than the jump rope?" To respond, students interpret the meaning of the comparison word and the data in the graph, identify the missing information from the statement, and use the information to correctly complete the statement about the data.

In grade 1, Unit 3: Lesson 10, students analyze and compare measurements to determine which books will fit in the given bookshelf. The teacher asks the students, "How do you know this book will or will not fit through the book return slot? Will your favorite book fit in the book return slot? How do you know? How did you measure the length of your favorite book? Which books were easier or harder to know if they would fit through the book return slot? Why?"

5.1b – Questions and tasks require students to create models to represent mathematical situations.

In grade 1, in Unit 5: Lesson 14, students choose a model to represent addition and subtraction story problems and then write an equation to match the model. The teacher asks the student, "What tools did you use to model the problem?"

In grade 1, in Unit 8: Lesson 5, students represent and model numbers up to 120 using base ten blocks, number bonds, standard form, and expanded form. The teacher asks the student, "How do you show this number [with base ten blocks; with a number bond; in standard form; in expanded form]? How do you know?"

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

Lessons provide opportunities for students to apply conceptual understanding to new problem situations and contexts. For example, in Unit 8: Lesson 3, students use their previous understanding of representing a number to now show multiple ways to represent a single given number. Students sort a set of cards into standard form and expanded form. The teacher asks students how they were able to determine the difference between standard form and expanded form. The teacher then displays a set of base-ten blocks on a chart with an incomplete standard form, number bond, and expanded form and asks the students to complete the chart. The teacher asks, "What does the [digit] in the standard form represent? Where else do you see that value? How do you know what numbers to add when writing the expanded form? Which number form is easiest and/or most challenging for you? Why?"

In grade 1, students engage in a problem about balls on a parachute. Students apply counting strategies to the number path to solve the problem. After solving the problem, students engage in a discussion and discuss how students used counting strategies to help solve the problem on the number path. The teacher asks, "How did you use the number path to help you solve? Why did some people start at 16 instead of 3? How is it possible that some people started at 3 and some started at 16 but they got the same answer?"

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 tasks.

During the "Launch" section in each lesson, students practice automaticity by recognizing the order of numbers from any given starting point. For example, in Unit 2: Lesson 3, students practice counting between one and 50 starting from a given number. Teacher guidance ensures students are always crossing a decade in the given counting before asking them to stop.

In grade 1, students build fluency with recognizing parts and totals. For example, in Unit 5, students complete an investigation on equality. The investigation has students complete tugboat puzzles using magnets. Students place groups of magnets on each side of the puzzle. This investigation reinforces how different groups of objects can be equal before using equality with parts and totals as a strategy in addition and subtraction problems.

5.2b – Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures within the lesson and/or throughout a unit.

In grade 1, Unit 7: Lesson 4, students develop an understanding of greater-set-unknown comparison problems through a real-life situation. The materials prompt students to use efficient strategies, such as counting-on, near-doubles, and make-a-ten. Word problems include teacher guidance like asking students, "What is this question asking you to do? What do you think you need to do to find the answer? Does this problem remind you of anything we have learned before?" to support them in identifying methods that reduce cognitive load while maintaining accuracy.

In grade 1, when solving comparison problems with the greater number unknown that have fewer in the description using visual models and equations, the materials provide opportunities for students to solve problems using multiple strategies, such as concrete objects, acting out the problem, strip diagrams, and equations. Lessons prompt students to choose a method, encouraging flexibility in selecting and applying strategies that make sense for different problem types. In addition, "Discourse Questions" allow students to explain their strategy and hear other students explain their strategies. For example, in Unit 7: Lesson

6, the "Discourse Questions" following a word problem ask, "What strategy did you use to solve? How did the equation help you solve? How did [your cubes; the strip diagram] help you solve?"

5.2c – Materials provide opportunities for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy within the lesson and throughout a unit.

In grade 1, Unit 7: Lesson 12, students play a problem-solving math game. The materials provide the teacher with questions to guide the students to evaluate their own strategies and mistakes by asking, "What have you tried? Why did it work or not work? What did you learn from the animation after you used the Go button?"

Throughout Unit 7 "Extending Approaches to Problem Solving," during independent practice, the teacher guide prompts the teacher to have students reflect on and evaluate their chosen strategy. The teacher asks, "Are you confident in your answer? Why or why not? In what ways have you already tried or not yet tried to solve this problem?"

5.2d – Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches.

In grade 1, Unit 7: Lesson 2, students are shown a story problem with three different strategies to solve. Teacher guidance provides three argumenteers and their strategies. While discussing the argumenteers, the guidance allows the teacher to guide students to noticing errors and less efficient strategies before having students model their own problem solving for a story problem.

During a "Formative Assessment Opportunity" in the "Explore" section of Unit 7: Lesson 2, teacher guidance suggests supporting students to notice when counting on is an efficient strategy and when it is not an efficient strategy for solving.

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 grade 1 materials provide an overview of the progression of procedural skills and fluency through the unit. For example, in Unit 2, the materials note that students "develop efficiency and fluency with adding and subtracting within 10, including recalling and using doubles facts up to 5+5, and work toward fluency with doubles facts up to 9+9." In addition, the materials note that students should procedurally move back and forth between number bonds and equations, with a fluent understanding of how the values are related. By the end of the unit, students should be using the commutative property and think-addition strategies with automaticity.

In grade 1, each unit has a "Mathematics" section with an overview for conceptual understanding throughout the unit. For example, in Unit 2, the "Conceptual Understanding" section states, "In this unit, students explore the idea that some representations help to make sense of the word problem while others help to solve the problem." Students will build flexibility in representing math problems symbolically with number bonds and equations, grow in their understanding of how these models show relationships between values, explore part-part-total relationships, and solve active addition and subtraction situations.

5.3b – Questions and tasks include the use of concrete models and manipulatives, pictorial representations (figures/drawings), and abstract representations, as required by the TEKS.

In grade 1, tasks include the use of concrete models, pictorial representations, and abstract representations, as required by the TEKS. For example, in Unit 1: Lesson 3, students use connecting cubes to represent an addition word problem. In Lesson 4, students determine the equation for addition problems using connecting cubes and then ten frames. In Lesson 6, students use a number path to represent the jumps forward in an addition problem from a given equation.

In grade 1, questions include the use of concrete models, pictorial representations, and abstract representations, as required by the TEKS. For example, in Unit 7: Lesson 1, students use manipulatives or drawings to represent a word problem. The teacher asks the students, "How can you use the tools to model the problem?" Students then use a strip diagram and counters to represent a word problem. The

teacher asks the students, "Where should we show [18 pears; 11 oranges; the unknown] in the strip diagram? Why? Does it matter which of the two bars we put 11 oranges? Why or why not?" Students model counting on to find the answer using the strip diagram and fingers before applying the counting on strategy to an equation with an unknown addend. The teacher asks, "What is the unknown? How do you know? Do you think counting on with your fingers will always be the most helpful strategy to use? [Why or why not]?"

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.

In grade 1, materials include support for students in connecting and creating concrete models to abstract concepts, as required by the TEKS. For example, in Unit 7: Lesson 8, students use connecting cubes to model a word problem. Students move to modeling a word problem on a strip diagram and writing an equation. In addition, through modeling on the teacher slides and "Discourse Questions," the teacher guidance supports the students by defining and explaining the concepts. For example, during the "Explore" section of the lesson, the teacher guidance states, "After students have tried modeling the story themselves, use the frog magnets to model the problem by counting out 14 frogs to represent the number of total frogs and circling the last 8 frogs to indicate the frogs that hopped on the log. Ask students to explain how the frogs on the slide match or do not match how they were using the cubes to model the problem. Use the 'Discourse Questions' to facilitate a class discussion about how your model matches the problem." Using the "Discourse Questions," the teacher asks the students, "How does the strip diagram or equation help you understand what happened in the story? How does the strip diagram or equation help you solve for the unknown?"

In grade 1, materials include support for students in connecting and creating representational models to abstract concepts, as required by the TEKS. For example, in Unit 7: Lesson 1, students use a strip diagram to represent a story problem before writing an equation. In addition, through modeling on the teacher slides and "Discourse Questions," the teacher guidance supports the students by defining and explaining the concepts. For example, during the "Explore" section of the lesson, the teacher guidance has the teacher let students share how to represent the word problem on the slides. The teacher asks, "How did you solve for the unknown? Did using the strip diagram help? Why or why not? Which strategy is the easiest way for you to solve this equation? Why? What is the answer to the word problem?"

5.4 Development of Academic Mathematical Language

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.4a	All criteria for guidance met.	3/3
5.4b	All criteria for guidance met.	1/1
5.4c	All criteria for guidance met.	6/6
—	**TOTAL**	10/10

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

In Unit 6: Lesson 1, the materials prompt students to look at a collection of objects and work with their partner to sort the objects. After the student discussion, the teacher introduces the word category and explains how this collection of objects is called *data*. "Discourse Questions" include "What are some differences between the objects in your collection? What are the different ways you can sort your collection? How could you describe each category? How could you best organize your categories to show your classmates? How many objects are in each of your categories?"

Lesson materials include bolded words throughout the lesson that introduce academic mathematical language. In addition, students use visuals with manipulatives to discuss, explain, and model mathematical language. For example, in Unit 11: Lesson 1, visuals include slides with representations of examples and nonexamples of equal shares. In addition, students use puzzles of equal and unequal shares during the lesson. "Discourse Questions" include "How was the pupusa shared? Is Mateo offering equal shares of the pupusa? How could you check?"

5.4b – Materials include embedded teacher guidance to scaffold and support students' development and use of academic mathematical vocabulary in context.

The materials have embedded teacher guidance to scaffold and support students' development and use of academic mathematical vocabulary in context through the "Differentiation" section within each lesson. For example, in Unit 5: Lesson 13, the "Differentiation" section provides additional vocabulary students may need visuals for, language support stems, and content support to address misconceptions with mathematical vocabulary. Additional mathematical terms students need to know are *fell off, left,* and *some.* Sentence stems support the understanding of addition and subtraction, "I know there are __ green beads because _____. I know __ beads fell off because _____. I solved by _____." For students who are struggling to understand equations, the guidance suggests for teachers to "Use color and explicit annotations to connect representations to equations."

Grade 1 materials provide embedded support for scaffolding and supporting expressive and productive language development of mathematical vocabulary in context. For example, in Unit 3: Lesson 2, in the "Supporting Language" section of the "Differentiation" section, the guidance states, "Support students'

understanding of the word digit by covering one digit of the two-digit numbers on the page, discussing how the visible digit relates to the parts in the number bond, and then repeat with the other digit."

5.4c – Materials include embedded teacher guidance to support the application of appropriate mathematical language to include vocabulary, syntax, and discourse to include guidance to support mathematical conversations that provide opportunities for students to hear, refine, and use math language with peers and develop their math language toolkit over time as well as guide teachers to support student responses using exemplar responses to questions and tasks.

Embedded teacher guidance supports student responses. Lesson materials provide lesson tasks on slides, "Discourse Questions" in the *Teaching Guide*, and exemplar responses for both question and tasks. For example, in Unit 5: Lesson 7, the task on the slide asks students to look at an equation and use the More Parts! template to help solve the equation. The teacher guidance provides the following "Discourse Questions" to support the task: "What is the total? How do you know? How did you solve? Which numbers did you add first? Why?" The answer for the equation is 15 and is listed in the *Teaching Guide*.

Sentence stems are provided to support students in using mathematical language. In addition, language supports are provided to support expressive, productive, receptive, and interpretive mathematical language use. For example, in Unit 8: Lesson 5, in the "Explore" section of the lesson, the language support states, "Support students in remembering the meanings of standard form and expanded form by providing nonmathematical examples of their usage (e.g., expand means take up more space, like when a balloon expands; standard means usual, like a standard size)." In addition, the materials provide language support sentence stems, such as "I can show the number in [standard form; expanded form] or using [base ten blocks; a number bond] as _____. I can show the number in [standard form; expanded form] or using [base ten blocks; a number bond] as _____ because _____. I can represent three-digit numbers in different ways by _____."

During a grade 1 lesson on comparing models of two-digit numbers, teachers provide cards with visuals of ten frames and base ten block representations of numbers to compare the two numbers represented. Students use "Discourse Questions" such as, "Which part of your model shows ones? How many ones do you each have? How are your cards similar or different?" This allows students to explain their reasoning.

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.	2/2
5.5d	All criteria for guidance met.	1/1
—	**TOTAL**	6/6

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

In grade 1, Unit 5: Lesson 4, students demonstrate 1.1.C by choosing a doubles mental math strategy or using manipulatives to model the equation. Students explain their thinking through "Discourse Questions," such as "How did you find the total? Did you need to use the magnets to solve? How are the two new equations the same as or different from 5+5=10? How does knowing 5+5=10 help you solve the other equations?"

Materials provide guidance on how process standards are addressed within a lesson. For example, in Unit 2: Lesson 5, guidance for 1.1.D states, "Students use language, number bonds, equations, and models (e.g., modeling with two-color counters, connecting cubes, or drawings; using addition strategies like counting on) to clearly convey their reasoning of part–part–total word problems."

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

The "Standards" section in the "Unit Overview" contains links for each unit and the progression of the process standards through the course. For example, Unit 2, 1.1G states, "Students share, explain, and justify their mathematical ideas using clear and precise language. They create models, such as number paths, number bonds, and equations, to represent and solve word problems involving addition and subtraction and explain their strategies and thought processes, connecting their models to the context of the problem. By comparing their solution methods with peers, they justify their approach, examine the effectiveness of different approaches, and refine their understanding." In Unit 5, the guidance demonstrates how students will continue to demonstrate the process standard 1.1G: "Students articulate their mathematical thinking using precise language and clear definitions, particularly when describing the meaning of equality and explaining their strategic choices. They construct mathematical arguments to justify their approaches and engage in productive mathematical discussion with peers, using specific examples and careful reasoning to support their ideas."

In a grade 1 lesson on using picture graphs to compare data, the materials highlight how students apply TEKS 1.1.E by creating and using picture graphs to organize and analyze data sets. The guidance describes how students will "sort objects into categories and record the number of objects in each

category on the picture graphs. They then use the complete picture graphs to identify and explain which category has the most or fewest objects."

5.5c – Materials include a description for each unit of how TEKS process standards are incorporated and connected throughout the unit.

A "Unit Overview" provides information about how process standards are connected through the unit. For example, in Unit 6, under the "Standards" section, the guidance of 1.1.B states, "Students analyze ways to solve problems involving data tables and bar-type graphs. They create a plan to strategically organize the data and justify their approach by explaining their thinking. They evaluate the process of identifying data, completing tables and bar-type graphs accurately, and adjusting plans when new data is presented, determining the effectiveness of the strategy. As students' understanding progresses, they refine their problem solving methods based on the situation. They reflect on the entire process, evaluating whether their approach to representing and interpreting the data was the most efficient method."

The materials include an overview of where each process standard is included in the lesson. For example, in Unit 6, under the "Standards" section, the guidance indicates that 1.1.D is incorporated into Lessons 2, 6, 7, and 8.

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

The "Lesson Overview" provides information about how process standards are incorporated through the lesson. For example, in Unit 1: Lesson 4, under the "Standards" section, the guidance for 1.1.B states, "Students explore how symbols (+ and =) can be combined with numbers to create addition equations. They formulate a plan by sharing strategies for adding the boxes and analyze the feedback of the ST Math puzzles to determine the reasonableness of the solution. Then, students show their understanding of the plus and equal signs by creating Push Box puzzles to match a given equation, and they present their answer to a classmate to justify their solution. Students work together to evaluate the answer and determine if the solution is reasonable."

The materials include an overview of each process standard included in the lesson. For example, in Unit 8: Lesson 9, under the "Standards" section, the guidance indicates that the lesson incorporates both 1.1.C and 1.1.F.

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.	6/6
6.1c	All criteria for guidance met.	3/3
—	**TOTAL**	12/12

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

Tasks gradually increase in difficulty, allowing students to build confidence before tackling more complex problems. For example, in Unit 1: Cluster 1, students determine how many by first counting and subitizing a group of objects before acting out to model addition within 10 and writing an equation to solve. Finally, students use counting on and a number path to solve addition within 10.

The materials provide guiding questions when students encounter difficulties, such as in Unit 2: Lesson 7, the "Discourse Questions" ask, "What do you see on the screen? What do you notice or wonder? What is this puzzle asking you to do? What do you think is going to happen when you use the Go button? What have you tried? Why did it work or not work? What did you learn from the animation after you used the Go button?" Such questions encourage students to think critically about their next steps.

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

In grade 1, the materials support students in understanding, explaining, and justifying multiple ways to represent problems. For example, in Unit 5, students represent problems using equations, place value, and ten frames. In addition, teacher guidance prompts students to explain and justify ways to represent a problem. For example, in Unit 5: Lesson 9, "Discourse Questions" prompt the students to answer, "How did you show your thinking? Did you get stuck? What happened? What thinking did you use to make it easier to choose prizes and add the number of tickets?"

Lessons support students in understanding, explaining, and justifying multiple ways to solve problems and complete tasks. For example, in Unit 7: Lesson 3, students solve addition and subtraction problems and complete tasks using strip diagrams and equations. In addition, teacher guidance prompts students to explain and justify their solutions. For example, "Discourse Questions" prompt the students to answer, "Are you confident in your answer? Why or why not? In what ways have you already tried or not yet tried to solve this problem?"

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 teachers.

"Discourse Questions" provide opportunities for students to verbally express their mathematical thinking through discussion prompts, teacher-facilitated questioning, structured math talk routines, turn-and-talk activities, whole-class discussions, and partner sharing routines. For example, in Unit 3: Lesson 3, students have a whole-class discussion with prompts such as, "What do you notice? What are the digits in the number 12? What is each digit's value? How many cubes go in the gray or white rectangle? Why? What goes in the blank boxes? How do you know?" In addition, students work with a partner to play a math game. The teacher facilitates questions during partner work time and prompts students to answer, "What do you see on the screen? What do you notice or wonder? What is this puzzle asking you to do? What have you tried? Why did it work or not work?"

In grade 1, the materials engage students in hands-on experiences with their peers. For example, in Unit 3: Lesson 6, during the "Explore" section of the lesson, students work with a partner to "practice comparing different models and identifying a number based on the amount of tens and ones. This encourages students to think flexibly about how numbers can be modeled."

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 teachers in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, and justifications.

The materials include open-ended problems that allow students to use different strategies to find a solution. After solving the problems, students explain their reasoning through peer discussions. For example, in Unit 2: Lesson 6, students choose a strategy to represent part-part-whole story problems with mixed unknown. The teacher facilitates a discussion by asking, "What did you do first to help you understand the problem? How did you show the unknown in your models? What model and/or strategy did you use to solve the problem? How does your [model; number bond; equation] match the story? What does each number tell us?"

Lessons provide opportunities for teachers to guide students in reflecting on their problem-solving processes by considering alternative methods. For example, in Unit 7: Lesson 3, students choose a strategy to solve an addition problem. The teacher facilitates a discussion for students to consider alternative methods for solving. "Discourse Questions" prompt students to think and answer, "What kind of fact is 5 + 5? How do you know? Did anyone solve this problem in a different way?"

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

In grade 1, the *Teaching Guide* provides guidance and prompts to support teachers with anticipated misconceptions. The *Teaching Guide* addresses common misconceptions and provides guidance on how to address the misconception. For example, in Unit 3, a common misconception is thinking a person is taller because they are standing on a higher level. Guidance suggests to look for students who say, "Paco is taller just because Paco is on a higher level." In addition, teachers are provided with "Discourse Questions" to address this misconception, such as "How did you decide who is taller? How can we prove that JiJi or Paco is taller? Can we find out who is taller if we put them side by side? Explain. If we put them side by side, what do we have to make sure we do to see who is taller?"

Materials offer guidance and prompts to support teachers in providing explanatory feedback. Each lesson component has a list of "Look Fors" for teachers to use to identify specific skills and components needed to master the lesson content. For example, in Unit 7: Lesson 4, the teacher is looking for students who "relate each number and unknown box in the strip diagram and in the equation to the story, notice the strip diagram and equation both show the lesser number and how many more but do not show the

greater number, leave the total blank to represent the unknown, and say the 6 and 7 can go together on the same side of the equal sign if adding." The teacher is provided prompts through "Discourse Questions" to guide students toward understanding the content and skills. For example, the "Discourse Questions" for the same lesson component state, "How are your strip diagram and equation the same? Where do the known numbers go in the equation? How do you know? Where does the unknown go? How can we show it? What does the unknown represent from the word problem? Does it matter where you put the 6 or 7? Why or why not?"