

# IMRA Review Cycle 2024 Report



Publisher Name	Program Name
Alba Educational Consulting, LLC	<i>Progressions by Alba Math</i>
Subject	Grade Level
Mathematics	1

**Texas Essential Knowledge and Skills (TEKS) Coverage:** **100%**  
**English Language Proficiency Standards (ELPS) Coverage:** **100%**  
**Quality Review Overall Score:** **227 / 227**

## IMRA Reviewers

**Flags for Suitability Noncompliance** **0**

Indicator	Count of Flags
1. Prohibition on Common Core	0
2. Alignment with Public Education's Constitutional Goal	0
3. Parental Rights and Responsibilities	0
4. Prohibition on Forced Political Activity	0
5. Protecting Children's Innocence	0
6. Promoting Sexual Risk Avoidance	0
7. Compliance with the Children's Internet Protection Act (CIPA)	0

**Flags for Suitability Compliance** **0**

Indicator	Count of Flags
Alignment with Public Education's Constitutional Goal, 2.1.1	0
Promoting Sexual Risk Avoidance, 6.2	0

**Alleged Factual Errors** **0**

## Public Feedback

**Flags for Suitability Noncompliance** **0**

Rubric Indicator	Count of Flags
1. Prohibition on Common Core:	0
2. Alignment with Public Education's Constitutional Goal	0
3. Parental Rights and Responsibilities	0
4. Prohibition on Forced Political Activity	0
5. Protecting Children's Innocence	0
6. Promoting Sexual Risk Avoidance	0
7. Compliance with the Children's Internet Protection Act (CIPA)	0

**Alleged Factual Errors** **0**

**Public Comments** **0**

# Quality Review Summary

Rubric Section	Quality Rating
1. Intentional Instructional Design	53 / 53
2. Progress Monitoring	28 / 28
3. Supports for All Learners	32 / 32
4. Depth and Coherence of Key Concepts	23 / 23
5. Balance of Conceptual and Procedural Understanding	66 / 66
6. Productive Struggle	25 / 25

## Strengths

- 1.1 Course-Level Design: Materials include a scope and sequence outlining the TEKS, ELPS, concepts, and knowledge taught in the course, with suggested pacing guides for various instructional calendars, explanations for the rationale of unit order and concept connections, guidance for unit and lesson internalization, and resources to support administrators and instructional coaches in implementing the materials as designed.
- 1.2 Unit-Level Design: Materials include comprehensive unit overviews that provide background content knowledge and academic vocabulary necessary for effective teaching, and contain supports for families in both Spanish and English with suggestions for supporting their student's progress.
- 1.3 Lesson-Level Design: Materials include comprehensive, structured lesson plans with daily objectives, questions, tasks, materials, and instructional assessments required to meet the content and language standards. They also provide a lesson overview outlining the suggested timing for each component, a list of necessary teacher and student materials, and guidance on the effective use of lesson materials for extended practice, such as homework, extension, and enrichment.
- 2.1 Instructional Assessments: Materials include a variety of instructional assessments at the unit and lesson levels, including diagnostic, formative, and summative assessments with varied tasks and questions, along with definitions and purposes, teacher guidance for consistent administration, alignment to TEKS and objectives, and standards-aligned items at different levels of complexity.
- 2.2 Data Analysis and Progress Monitoring: Materials include instructional assessments and scoring information that provide guidance for interpreting and responding to student performance, offer guidance on using tasks and activities to address student performance trends, and include tools for students to track their own progress and growth.

- 3.1 Differentiation and Scaffolds: Materials include teacher guidance for differentiated instruction, activities, and scaffolded lessons for students who have not yet reached proficiency, pre-teaching or embedded supports for unfamiliar vocabulary and references in text, and guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skills.
- 3.2 Instructional Methods: Materials include prompts and guidance to support teachers in modeling, explaining, and directly and explicitly communicating concepts to be learned. They provide teacher guidance and recommendations for effective lesson delivery using various instructional approaches, and support multiple types of practice with guidance on recommended structures, such as whole group, small group, and individual settings, to ensure effective implementation.
- 3.3 Support for Emergent Bilingual Students: Materials provide guidance for teachers in bilingual/ESL programs, support academic vocabulary and comprehension, and include resources for metalinguistic transfer in dual language immersion programs.
- 4.1 Depth of Key Concepts: Materials provide practice opportunities and instructional assessments that require students to demonstrate depth of understanding aligned to the TEKS, with questions and tasks that progressively increase in rigor and complexity, leading to grade-level proficiency in mathematics standards.
- 4.2 Coherence of Key Concepts: Materials demonstrate coherence across courses and grade bands through a logically sequenced scope and sequence, explicitly connecting patterns, big ideas, and relationships between mathematical concepts, linking content and language across grade levels, and connecting students' prior knowledge to new mathematical knowledge and skills.
- 4.3 Spaced and Interleaved Practice: Materials provide spaced retrieval and interleaved practice opportunities with previously learned skills and concepts across lessons and units.
- 5.1 Development of Conceptual Understanding: Materials include questions and tasks that require students to interpret, analyze, and evaluate various models for mathematical concepts, create models to represent mathematical situations, and apply conceptual understanding to new problem situations and contexts.
- 5.2 Development of Fluency: Materials provide tasks designed to build student automaticity and fluency for grade-level tasks, offer opportunities to practice efficient and accurate mathematical procedures, evaluate procedures for efficiency and accuracy, and include embedded supports for teachers to guide students toward more efficient approaches.
- 5.3 Balance of Conceptual Understanding and Procedural Fluency: Materials

explicitly state how the conceptual and procedural emphasis of the TEKS are addressed, include questions and tasks that use concrete models, pictorial representations, and abstract representations, and provide supports for students in connecting and explaining these models to abstract concepts.

- 5.4 Development of Academic Mathematical Language: Materials provide opportunities for students to develop academic mathematical language using visuals, manipulatives, and language strategies, with embedded teacher guidance on scaffolding vocabulary, syntax, and discourse, and supporting mathematical conversations to refine and use math language.
- 5.5 Process Standards Connections: Materials integrate process standards appropriately, providing descriptions of how they are incorporated and connected

throughout the course, within each unit, and in each lesson.

- 6.1 Student Self-Efficacy: Materials provide opportunities for students to think mathematically, persevere through problem-solving, and make sense of mathematics, while supporting them in understanding multiple ways to solve problems and requiring them to engage with math through doing, writing, and discussion.
- 6.2 Facilitating Productive Struggle: Materials support teachers in guiding students to share and reflect on their problem-solving approaches, offering prompts and guidance for providing explanatory feedback based on student responses and anticipated misconceptions.

## Challenges

- No challenges in this material.

## Summary

*Progressions by Alba Math* is a mathematics K–1 program aligned to the Texas Essential Knowledge and Skills (TEKS). Each unit in this curriculum begins with a Learning Progression document that graphically displays the progression of standards and how they connect to previously taught content. Every unit includes pre-assessments to help teachers gauge their understanding of prior knowledge. Pre-assessments allow teachers to address unfinished learning in these prerequisite skills before beginning grade-level instruction. At the same time, scaffolding back and scaffold-forward lessons help teachers differentiate during instruction. Each unit includes a range of days to accommodate various instructional calendars. Detailed Unit Overviews identify instructional alignment to the TEKS and ELPS, the recommended number of days for each lesson, a summary of the unit content, common misconceptions, vocabulary, and suggested sentence stems.

Campus and district instructional leaders should consider the following:

- The product includes complete and comprehensive lessons for teachers that support effective instructional delivery and TEKS-aligned assessment opportunities to support student learning.

These lessons provide grade-level-appropriate content knowledge and balance conceptual understanding and procedural fluency.

- The program provides integrated support for developing academic vocabulary, sentence stems, and ELPS connections at the unit level to support Emergent Bilingual Students (EBS). The materials also provide appropriate support through differentiation in tasks and activities for students who have and have not achieved mastery, to support achievement for all students.

## Intentional Instructional Design

1.1	Course-Level Design	15/15
1.1a	<a href="#">Materials include a scope and sequence outlining the TEKS, ELPS, concepts, and knowledge taught in the course.</a>	5/5
1.1b	<a href="#">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).</a>	2/2
1.1c	<a href="#">Materials include an explanation for the rationale of unit order as well as how concepts to be learned connect throughout the course.</a>	2/2
1.1d	<a href="#">Materials include guidance, protocols, and/or templates for unit and lesson internalization.</a>	2/2
1.1e	<a href="#">Materials include resources and guidance to support administrators and instructional coaches with implementing the materials as designed.</a>	4/4

The materials include a scope and sequence outlining the Texas Essential Knowledge and Skills (TEKS), English Language Proficiency Standards (ELPS), concepts, and knowledge taught in the course. Materials include suggested pacing (pacing guide/calendar) to support effective implementation for various instructional calendars (e.g., varying numbers of instructional days– 165, 180, and 210). Materials include an explanation for the rationale of unit order as well as how concepts to be learned connect throughout the course. Materials include guidance, protocols, and templates for unit and lesson internalization. Materials include resources and guidance to support administrators and instructional coaches with implementing the materials as designed.

Evidence includes, but is not limited to:

**Materials include a scope-and-sequence outlining the TEKS, ELPS, concepts, and knowledge taught in the course.**

- The materials include a scope and sequence located in the Program Overview, which outlines the TEKS taught in each unit. For example, the grade 1 Fractions unit covers the TEKS 1.6(G) and 1.6(H).
- The Program Overview contains a Program Unit Map, an ELPS Map, and a Process Standards Map. Each section includes a rationale and progression for the entire year. The ELPS Map describes how the units incorporate the ELPS into instruction across the course. Teachers are provided with the specific ELPS written out on each lesson plan. For example, in the lesson titled "Models & Numbers Loop," the specific ELPS are listed in the "Language Standards" section. The ELPS listed include the following: "1(A) Use prior knowledge and experiences to understand meanings in English"; "4(C) Develop basic sight vocabulary, derive the meaning of environmental print, and comprehend English vocabulary and language structures used routinely in written classroom materials." Each unit begins with an overview that contains the lesson title, content standards, process skills, ELPS, and suggested days. For example, the grade 1 Numbers to 120 Overview instructs the teacher that the first lesson after the scaffold-

back lesson will be called "Counting Collections, Part 2" and covers TEKS 1.5(B), 1.2(C), and K.2(B), Process Standards 1(A), 1(B), 1(C), and 1(E), as well as ELPS 2(A) and 3(B). The student expectations listed in the table are explicitly written out below it. If teachers are unfamiliar with ELPS 1(B), they will need to seek information beyond the program to understand it.

- The "Unit Rationale" section located in the Program Overview shows a clear alignment of concepts and knowledge in the unit and lesson progression. The "Grade 1, Unit 9 Rationale" from the Program Overview states that "the primary aim of this unit is to develop students' ability to collect data based on a specific question, organize it into a graph, and interpret the results."

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

- The "Unit Rationale" section includes pacing that would support an instructional calendar ranging from 145 to 210 days. The rationale includes a note to teachers stating that "each unit's schedule includes days for pre-assessments, re-teaching opportunities, scaffold-back lessons, scaffold-forward lessons, and unit assessments. When planning, materials provide guidance to consider the number of days on your instructional calendar and on adjusting as necessary." The materials include the "Unit Overview" and "Pacing Snapshot" sections, which list each unit and the suggested range of instructional days, respectively. For example, the materials suggest that grade 1, Unit 4: Time should last 12 to 15 days.
- The materials offer ways for teachers to transition lessons into workstations, allowing students to continue practicing skills throughout the year. The grade 1, Unit 6: Numbers to 120 materials include workstations such as "Ten More Connect Four" and "One More and One Less," which students can continue practicing throughout the year until they demonstrate mastery.

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

- The materials recommend an intentional sequence of units that considers the connections between the concepts taught throughout the year. For example, as the Program Unit Map for grade 1 states, "Unit 1 begins with addition and subtraction concepts, which are embedded throughout the year. Students then explore geometry and move to fractions, where they use their spatial reasoning to partition 2D figures. Students then apply their understanding of halves to tell time to the nearest hour and half hour. This is followed by 'Addition & Subtraction, Part 2,' where students solve all problem types. Unit 6 engages students in early place value understandings with numbers up to 120. Then, they use skip counting strategies to count collections of coins and explore personal financial literacy concepts. Students finish the year exploring linear measurement and, finally, data analysis."
- The materials include a progression graphic on the Program Unit Map that visually shows how the concepts and knowledge connect to the skills and recurring topics across units. The Program Unit Map also contains a "Unit Rationale" section for each unit that explains how the unit connects to



prior and future learning. As the rationale for grade 1, Unit 1: Addition and Subtraction, Part 1 states, "The unit aims to expose students to joining and separating change-unknown and provide opportunities to build their understanding of basic fact strategies, such as making ten and subtracting to ten. Students solve problems within twenty where 'regrouping' is not required. The work in this unit prepares students for Unit 5: Addition & Subtraction, Part 2, where students explore all the problem types and then apply basic fact strategies such as using ten and subtracting to a ten. Students continue to engage in activities."

- Each unit contains a "Content Map," which lists previously taught standards in the "Scaffold-Back" section, current grade level focal standards for the unit in the "Concept Development" section, and opportunities for extension in the "Scaffold-Forward" section. As the grade 1 Program Overview explains, "While students are engaged in the Concept Development phase of learning, some students need prior concepts reinforced, and others are ready for extensions. Scaffold-back and Scaffold-forward lessons provide guidance for teachers to easily differentiate to meet all students' needs." For example, as the grade 1 Content Map at the beginning of Unit 8: Measurement explains, "Students explore different ways objects and substances can be measured and use their reasoning skills to compare which has more or less of a given attribute" in the "Scaffold-Back" section, and how it extends to "more formal measuring tools to determine the length of an object to the nearest whole unit" in the "Scaffold-Forward" section.

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**Materials include guidance, protocols, and/or templates for unit and lesson internalization.**

- The Implementation Support Guide includes detailed protocols for district mathematics leaders, instructional coaches, and teachers on internalizing the program. The grade 1 materials include templates and step-by-step instructions to create a "Year-at-a-Glance" for a school year with four or six grading periods.
- The grade 1 materials provide a template for creating a unit where teachers unpack the big ideas from it. For example, the Addition and Subtraction Unit-at-a-Glance template guides how to read through the unit overview and annotate findings such as manipulatives, models, vocabulary, misconceptions, and strategies within the unit. The Implementation Support Guide provides a pre-filled sample template that serves as an example that can be used during planning.
- This guide also provides a template for internalizing each unit by asking questions that promote deep thinking about the unit's content. The first part of the Unit Internalization Template is specific to the unit. For example, the template for grade 1, Unit 1: Addition & Subtraction, Part 1 asks "Why are addition and subtraction taught simultaneously throughout the unit instead of in isolation?" The second part of the template applies to all the units throughout the course. This section promotes deeper thinking of the content by asking questions like, "What might we do to differentiate for students who are having difficulty mastering the concepts throughout the unit?"



**Materials include resources and guidance to support administrators and instructional coaches with implementing the materials as designed.**

- The materials guide teachers, instructional coaches, and administrators in implementing the materials as designed through specific guidance included in the Program Overview. For example, the program components explain each piece of the units in detail. Every unit starts with a "Learning Progression" document. The "Learning Progression Content Map" visually shows the progression of standards within the unit and their connection to previously taught standards. The "Learning Progression Activity Map" illustrates how the content is covered through lessons, tasks, games, and workstations.
- Each lesson in the grade 1 program includes a lesson plan that lists the needed materials for the lesson, a "Lesson Scaffold" section that explains how to guide the students through the lesson, and a "Suggestion" section that offers methods to address common misconceptions as well as tips for the program's smooth implementation.
- The Implementation Support Guide provides guiding questions and a "Lesson Internalization Overview" section to help instructional coaches and teachers understand the materials and lesson components. This guide also includes an "Instructional Look Fors" document to guide teachers, instructional coaches, and administrators in implementing the lessons as designed. This document outlines six big things to look for regarding instruction for administrators and instructional coaches: "1. What is the role of the teacher and students? 2. How is the teacher promoting student discourse? 3. How is the teacher differentiating for all learners? 4. How are students engaged in the lesson? 5. How does the teacher check for understanding? 6. How is the teacher structuring the lesson?" The materials provide an "Instructional Look Fors Observation Form" to help teachers, coaches, and administrators set an area of focus for teacher growth in the program's implementation.

## Intentional Instructional Design

1.2	Unit-Level Design	4/4
1.2a	<a href="#">Materials include comprehensive unit overviews that provide the background content knowledge and academic vocabulary necessary to effectively teach the concepts in the unit.</a>	2/2
1.2b	<a href="#">Materials contain supports for families in both Spanish and English for each unit with suggestions on supporting the progress of their student.</a>	2/2

**The materials include comprehensive unit overviews that provide the background content knowledge and academic vocabulary necessary to teach the concepts in the unit effectively. Materials contain supports for families in both Spanish and English for each unit with suggestions on supporting the progress of their student.**

Evidence includes, but is not limited to:

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

- The materials include a comprehensive overview of each unit. The overview for grade 1, Unit 1: Addition and Subtraction, Part 1 contains a section titled "Content Summary" that lists primary learning targets for the unit. Each topic is clearly defined, correlating with student expectations. This section informs the teacher about which skills build upon one other, where students may struggle, and which skills will be expanded on in future units.
- Each unit overview contains a section titled "Common Misconceptions." The overview for grade 1, Unit 1: Addition and Subtraction, Part 1 states, "students may confuse the addition and subtraction symbols as they develop their ability to represent problems using equations." This section helps build background content knowledge.
- Each unit overview contains a section titled "Vocabulary/Academic Language." This section lists terms to be used during instruction. Teachers are advised to "create a word wall."
- The materials connect previously learned concepts and strategies in each unit to current content. Each unit contains a content map that provides the background content knowledge and skills in the "Scaffold-Back" section necessary for success in the "Concept Development" section. The grade 1, Unit 4: Time Content Map explains that "students understand the continuous nature of time and can communicate the relative time of events using words such as yesterday, today, tomorrow, before, and after" as the prerequisite skills to tell time to the nearest half hour.

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

- The "Family/Caregiver Support" section in the materials provides family letters for each unit and some math games to be played at home. All support information provided is in English and Spanish. Each letter contains a section titled "In this unit, your Kindergartener will...," "Things that make you go hmmm...," and "Math Outside the Classroom."
- The grade 1, Unit 3: Fractions family letter tells families that their student will "partition 2D figures into two fair shares and describe the parts as halves, partition 2D figures into four fair shares and describe the parts as fourths and identify examples and non-examples of halves and fourths."
- The "Things that make you go hmmm..." section of grade 1, Unit 5: Addition and Subtraction, Part 2 family letter reminds families, "Focus on reading comprehension when reading story problems. This will help students understand the relationship between the numbers in the story problem."
- The "Math Outside the Classroom" section materials provide families with ideas for practicing concepts outside of the classroom. Grade 1, Unit 7: Money and Personal Financial Literacy family letter suggests that families "find a collection of coins and help [their] first grader count them." The letter also reminds parents that first graders do not count collections of coins involving quarters until grade 2.
- Grade 1, Unit 6: Numbers to 120 family letter provides a "Race to 120" game board for students and families to practice at home. This provides families with authentic ideas to extend math outside the classroom through literature connection and by using common household items to create hands-on experiences.

## Intentional Instructional Design

1.3	Lesson-Level Design	34/34
1.3a	<a href="#">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.</a>	30/30
1.3b	<a href="#">Materials include a lesson overview outlining the suggested timing for each lesson component.</a>	1/1
1.3c	<a href="#">Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson.</a>	2/2
1.3d	<a href="#">Materials include guidance on the effective use of lesson materials for extended practice (e.g., homework, extension, enrichment).</a>	1/1

**The materials include comprehensive, structured, and detailed lesson plans that include daily objectives, questions, tasks, materials, and instructional assessments required to meet the content and language standards of the lesson. Materials include a lesson overview outlining the suggested timing for each lesson component. Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson. Materials include guidance on the effective use of lesson materials for extended practice (e.g., homework, extension, and enrichment).**

Evidence includes, but is not limited to:

**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.**

- The grade 1 materials include a comprehensive list of all materials, supplies, and preparation required to support instructional activities for each lesson. Each lesson includes the sections "Materials Needed" and "Preparation," which contain detailed information such as book titles, math manipulatives, tools, and other necessary materials required to meet the content and language standards of the lesson. The grade 1, Unit 1: Addition and Subtraction, Part 1 "Materials Needed" section for the lesson titled "Missing Cupcakes" informs teachers they will need to gather Pete the Cat and the Missing Cupcakes by Kimberly and James Dean, as well as supply one Cupcake Window Work Mat, ten two-color counters, one Missing Cupcakes Exit Ticket, and one pencil per student.
- The grade 1 materials include structured, detailed, step-by-step lesson plans that are easy to follow. These lesson plans are comprehensive and cover the span of expectations for the school year. In the grade 1, Unit 9: Data Analysis lesson titled "Using Tallies to Keep Track," the Content and Language Objective states that "students will collect data, organize the data using tallies, create a bar-type graph, and analyze the results." The lesson lists materials needed for this lesson: Tally Cat Keeps Track by Trudy Harris, twenty-five craft sticks per class, three plastic cups per class, one sticky note per student, one grid work mat per student, one dry-erase work map per student, one permanent marker (optional), one sheet of white paper

per student (optional), as well as chart markers and one sheet of chart paper for teacher use. The lesson facilitation steps provide the teacher with step-by-step guidance to implement the lesson. For example, step one tells the teacher to "sit students in a circle and begin reading Tally Cat Keeps Track, stopping on pages 10-11." The lesson continues as the teacher directs students to notice how Tally Cat keeps track using tallies and asks what they notice about how the number ten is represented. The teacher hands out one craft stick to each student and asks questions such as "Which is your favorite color of these?" Students place their craft sticks next to their favorite-colored cup, then engage in a think-pair-share routine to discuss how they can organize the craft sticks. The lesson continues as the teacher and students work together to organize the data onto chart paper to create a bar-type graph.

- The grade 1 materials provide daily opportunities for formative assessment through teacher observation. For example, at the end of the Unit 6: Numbers to 120 lesson called "Shake and Compare," the teacher informally assesses students by observing students pour two-color counters out of a cup, record the number of red and yellow counters, and compare the two numbers by circling greater than, less than, or equal to on their recording sheets. The teacher listens for students to correctly compare the two numbers and explains how the double ten frames help them compare.
- The grade 1 materials provide opportunities for students to demonstrate proficiency more formally through exit tickets. In grade 1, Unit 3: Fractions lesson "Pattern Block Fractions," students use pattern blocks to explore the concept of partitioning shapes into halves and fourths. At the end of the activity, the students are given an exit ticket in which they partition a drawn hexagon into halves and fourths and explain how they know it has been partitioned into halves and fourths.
- The grade 1 materials include opportunities for students to practice language objectives in each lesson. For example, in the Unit 8: Measurement lesson "How Long?" Students use their language skills by explaining how they measured the length of various classroom objects using craft sticks.

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**Materials include a lesson overview outlining the suggested timing for each lesson component.**

- The materials include the Implementation Support Guide. This guide includes suggested lesson component timing for different instructional situations. For example, if the teacher introduces new content, a new workstation, or a new partner activity, the guide advises the teacher on how to adjust their lesson timing. For new or continued content, the daily energizer will take five minutes, the mini lesson will take fifteen minutes, lesson closure will take five minutes, and workstations and small group instruction will take thirty-five to fifty-five minutes.
- The Implementation Support Guide provides a different lesson component timing if the lesson facilitation introduces a new workstation. When a new workstation is introduced, the daily energizer will take five minutes, the mini lesson (introduce a new workstation) will take fifteen minutes, practicing the new workstation will take twenty minutes, workstations and small group instruction will take fifteen to thirty-five minutes, and the lesson closure will take five minutes.

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**Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson.**

- The grade 1 materials provide two lists for each unit that include all the materials needed to teach the lessons in the unit. One list includes the required materials provided in the kit and is broken down into reusable print, reusable materials, and consumable materials. An additional list includes manipulatives, classroom supplies, consumable print, and trade books not included in the kit.
- The unit-level materials lists are not organized into teacher and student materials. All lessons include a "Materials Needed" section with a list of items needed for the lesson. Each material list at the lesson level states how many of the required materials are necessary. For example, the grade 1, Unit 9 lesson "Using Tallies to Keep Track" lists the book Tally Cat Keeps Track by Trudy Harris, twenty-five craft sticks per class, three plastic cups per class, one sticky note per student, one grid work mat per student, one dry erase work map per student, one permanent marker (optional), one sheet of white paper per student (optional), as well as chart markers and one sheet of chart paper for teacher use.
- Each lesson plan includes a "Preparation" section that informs teachers of any work that needs to be completed before the start of the lesson to deliver it effectively. For example, in the grade 1, Unit 8: Measurement lesson titled "Comparing Names," the materials instruct the teacher to "copy and cut enough rows from the name grids so each student has a row."

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

- All the grade 1 lesson plans include a section titled "Lesson Suggestions," which provides suggestions for scaffolding and extension. For example, the grade 1, Unit 9: Data Analysis lesson "The Change in My Pocket" suggests extending student learning by encouraging students to verbalize what they notice about the graph. The lesson includes the sentence stem "I have more \_\_\_\_ than..." to help students verbalize their thinking.
- The materials provide family letters for each unit that contain opportunities to review, apply new knowledge, and connect student learning to experiences beyond school. For example, Unit 3: Fractions family letter lists activities that can be done at home to help extend the lesson. One activity includes playing a game called "Fraction Bump" that students will have learned in class. The family letter includes a copy of the game board so students can have additional practice at home with their families.
- The materials provide opportunities for families to reinforce and review classroom learning. For example, the grade 1, Unit 8: Measurement family letter suggests, "Have your first grader use paperclips to measure the length of different household items. Have your first grader measure the same item with two different objects, such as paper clips and craft sticks, and discuss why the measurements were different."
- Family letters also provide opportunities for families to help their students make connections between the math that they are learning in the classroom and math in the real world. For example, the Unit 7: Money and Personal Financial Literacy family letter encourages students

to go to the store with their family and, as they shop, discuss whether the purchased items are wanted or needed, and why.



## Progress Monitoring

2.1	Instructional Assessments	24/24
2.1a	<a href="#">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.</a>	12/12
2.1b	<a href="#">Materials include the definition and intended purpose for the types of instructional assessments included.</a>	2/2
2.1c	<a href="#">Materials include teacher guidance to ensure consistent and accurate administration of instructional assessments.</a>	2/2
2.1d	<a href="#">Diagnostic, formative, and summative assessments are aligned to the TEKS and objectives of the course, unit, or lesson.</a>	6/6
2.1e	<a href="#">Instructional assessments include standards-aligned items at varying levels of complexity.</a>	2/2

**The 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. Materials include the definition and intended purpose for the types of instructional assessments included. Materials include teacher guidance to ensure consistent and accurate administration of instructional assessments. Diagnostic, formative, and summative assessments are aligned to the TEKS of the course, unit, or lesson. Instructional assessments include standards-aligned items at varying levels of complexity.**

Evidence includes, but is not limited to:

**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.**

- The materials include a variety of assessment tools for measuring understanding of mathematical concepts and skills, such as diagnostic (unit pre-assessments), formative (teacher observation and lesson exit tickets), and summative assessments (unit assessments) at the unit and lesson level.
- Each unit includes a pre-assessment, exit tickets, and at least one unit assessment. Longer units include more than one unit assessment that assesses student progress. For example, grade 1, Unit 6: Numbers to 120 includes three-unit assessments. In the first unit assessment, students are asked to represent the number 54 and record how many tens and ones it has, while in the second assessment, students are expected to represent the number 76 in expanded and standard form. In the third unit assessment, students are expected to generate a number less than and greater than a given number, in addition to comparing numbers using the comparison symbols. Students are also asked to compose/decompose the number 46 in three different ways using linking cubes and justify how they know each representation equals 46.
- The assessments vary in types of tasks. Throughout each lesson and in each unit, students are asked to identify, illustrate, explain, model, and solve problems in multiple ways. The

questions vary in format, such as illustrations, word problems, models, fill-in-the-blanks, generating equations, and matching. For example, the grade 1, Unit 3: Fractions lesson called "Pattern Block Fractions" provides an exit ticket directing students to partition a hexagon into halves and another hexagon into fourths. Students are directed to justify their answer by completing the following sentence frame: "I know the hexagon has been partitioned into halves or fourths because \_\_\_\_\_." Grade 1, Unit 9: Data Analysis unit includes three exit tickets. The exit ticket for the lesson "What Do You See?" instructs students to look at a random arrangement of pictures of ducks and rabbits. Students count how many there are of each. The materials then direct students to "complete the chart using tally marks for the data collected below."

- The assessments vary in types of tasks, such as exit tickets, pre-assessments, and performance-based assessments. For example, in grade 1, Unit 5: Addition and Subtraction, Part 2, Unit Assessment 1, students must write a number sentence representing a given word problem.
- The grade 1 materials include questions that vary in format, such as open-ended questions and sentence stems for students to complete at the lesson level. For example, in Unit 8: Measurement lesson "How Many...?" The teacher asks the questions, "How does this task relate to the Iterating Inches task?" and "Why could we have different answers for each student who measured?"

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**Materials include the definition and intended purpose for the types of instructional assessments included.**

- The materials include the intended purpose for the types of instructional assessments included. The materials define diagnostic assessments by stating that "diagnostic assessments are conducted prior to instruction to determine students' existing knowledge, skills, and abilities." The grade 1 Program Overview explains that the intended purpose behind these unit pre-assessments is to "pre-assess prior knowledge before beginning each unit." The materials also state that the pre-assessments are "designed to reveal knowledge gaps that should be addressed before beginning activities within the content progression." For example, the pre-assessment for grade 1, Unit 3: Fractions states that "no prior standards align to the first-grade standards for fractions. This pre-assessment can be used to preview what students already know about the following standards based on real-life experiences: 1.6(G) and 1.6(H)."
- The materials provide exit tickets and recording sheets during lessons as formative assessments. The materials define formative assessments by stating that "formative assessments are conducted throughout the instructional process to monitor student learning and provide ongoing feedback." The materials explain that "each unit contains multiple exit tickets. Some exit tickets may be observational, while others require a written response. Exit tickets are designed to inform instruction by determining whether students are ready to move on or if more time is needed to master a particular concept."
- The materials also include recording sheets, which "are provided for certain activities and can be used to check for understanding, record students' ideas, or take notes."
- The materials provide unit assessments as summative assessments. The materials state that the purpose behind the unit assessments is to "assess students' understanding of concepts

explored throughout each unit." The materials also include an end-of-year fluency assessment that is "provided to evaluate student progress within these fluency targets." The materials provide a definition for summative assessments by stating that "summative assessments are conducted at the end of an instructional period to evaluate overall student learning and measure the effectiveness of instruction."

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**Materials include teacher guidance to ensure consistent and accurate administration of instructional assessments.**

- The materials include clear guidance for teachers to efficiently and consistently administer the assessments. All pre-assessments and unit assessments have a guidance document that includes the materials needed to give the assessment, any preparations needing to be done ahead of time, the standards that are assessed, and explicit administration instructions for each prompt. For example, in the unit assessment for grade 1, Unit 2: Geometry, Prompt Three: Composing Shapes - 1.6(F) directs the teacher to "ask the student to use at least two tangrams to compose each of the following shapes one at a time: triangle, rectangle, rhombus, square, and hexagon." In the unit assessment for Unit 8: Measurement, Prompt One: Measure Length - 1.7(A), 1.7(B), 1.7(D) directs the teacher to "show the student the Measurement Unit Assessment Card A. Then, prompt the student to measure the length of the line."
- The materials include teacher guidance to ensure the accurate administration and recording of data observed during the assessments. All pre-assessments and unit assessments include a rubric to score student responses as proficient, developing, or emergent. The statements on the rubric clearly explain how each student should be scored according to their response to the assessment prompt. For example, in the unit assessment for grade 1, Unit 2: Geometry, Prompt Three: Composing Shapes 1.6(F) asks students to use tangram pieces to compose five different shapes. The statements on the rubric advise the teacher to score a student as proficient if the student accurately composes all five shapes. If a student "accurately composes four shapes," they score as developing. If a student "accurately composes three or fewer shapes," they score as emergent. The pre-assessment for grade 1, Unit 3: Fractions instructs teachers to "read prompt one and allow students time to respond. Record student performance and take notes as needed." The rubric/recording sheet for this assessment tells teachers that a student unable to partition either sheet of paper should score as emergent.

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

- The materials include exit tickets, which can be considered formative and diagnostic assessments at the lesson level, and are TEKS-aligned. For example, in grade 1, Unit 9, the lesson "What Do You See?" covers the math standards 1.8(A), 1.8(B), and 1.8(C). The exit ticket directs students to "complete the chart using tally marks for the data collected below." There is a picture of eight ducks and ten rabbits. Students fill in the table with tally marks to indicate the correct number of ducks and rabbits. This exit ticket only addresses 1.8(A) (collect, sort, and organize data in up to three categories using models/representations such as tally marks or T-charts)..
- The front matter states that "recording sheets can be used to evaluate student progress" or to record their thinking and take notes about concepts. A blackline master can be found following the corresponding lesson." An example is Unit 9: Data Analysis, in which students use the "My Survey Project" recording sheet in the lesson titled "My Survey Project." This recording sheet assesses 1.8(A) and 1.8(B). The students then write a conclusion and share it with the class, which assesses 1.8(C). The lesson directs teachers to "permit students to present their graph and share their conclusions with the class. Students can pose their generated questions to the class. Use this as an opportunity to check for understanding."
- The materials assess the full extent of standard 1.4(A) throughout the unit. Students are asked to identify the value of each coin on the "Make Cents with Pennies & Nickels" and "Make Cents with Quarters" exit tickets. Teachers are provided guidance on using observations as formative assessments to check for student understanding as students discuss the relationship between the coins. For example, the following statement is provided in the lessons "Cover a Dime," "Race to a Dime," "Cover a Quarter," "Race to a Quarter," "Cover 100 Cents," and "Race to 100 Cents": "As students continue to practice using the workstation, observe their interactions with the math content to check for depth of understanding." The materials include unit assessments that are considered summative. These assessments are aligned with the TEKS for the grade level. For example, grade 1, Unit 6: Numbers to 120 includes three-unit assessments spaced out throughout the unit as a progress-monitoring tool. The first unit assessment assesses numbers up to 50, the second unit assessment assesses numbers up to 100, and the final unit assessment reaches the fullness of the TEKS. For example, the first prompt on the third unit assessment for that unit asks the teacher to show the number 100. The materials instruct teachers to tell students to "write a number less than one hundred. Next, prompt them to write a number greater than one hundred." The second prompt requires students to compare numbers up to 120 using symbols. The third prompt directs the teacher to "show the student the 'Whole Number' cards, and prompt them to put the cards in order from least to greatest. Next, ask the student to write the four numbers in the correct location on the open number line on the 'Numbers to 120: Unit Assessment 3' Recording Sheet."
- These assessments test all the student expectations for the unit as outlined in the unit overview. For example, the unit assessment for grade 1, Unit 8: Measurement covers TEKS 1.7(A), 1.7(B), 1.7(C), and 1.7(D), which are all the measurement TEKS listed in the unit overview.

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**Instructional assessments include standards-aligned items at varying levels of complexity.**

- The instructional assessments included in the grade 1 materials include more than two levels of complexity. In the unit assessment for grade 1, Unit 2: Geometry, the teacher places shape cards on the table and asks the students to separate the circles from the group. The teacher then asks the student to describe the attributes of circles. The task of separating the shapes is an "Apply" level task. When students explain the attributes of circles, it demonstrates their understanding.
- The exit ticket found in the grade 1, Unit 3: Fractions lesson titled "Pattern Block Fractions" asks students to partition a hexagon into halves and fourths. Students are asked to draw lines and record their reasoning for doing so. This task encompasses the "Understand-Explain" and "Apply-Showing" complexity levels.
- In grade 1, Unit 4: Time lesson titled "Minute Hand Clocks," the exit ticket directs students to recall analog clocks that represent half past and o'clock. Students are expected to recall and remember basic facts about telling time.

## Progress Monitoring

2.2	Data Analysis and Progress Monitoring	4/4
2.2a	<a href="#">Instructional assessments and scoring information provide guidance for interpreting and responding to student performance.</a>	2/2
2.2b	<a href="#">Materials provide guidance for the use of included tasks and activities to respond to student trends in performance on assessments.</a>	1/1
2.2c	<a href="#">Materials include tools for students to track their own progress and growth.</a>	1/1

**The instructional assessments and scoring information provide guidance for interpreting and responding to student performance. Materials provide guidance for the use of included tasks and activities to respond to student trends in performance on assessments. Materials include tools for students to track their own progress and growth.**

Evidence includes, but is not limited to:

**Instructional assessments and scoring information provide guidance for interpreting and responding to student performance.**

- The materials guide teachers on how to interpret and respond to student performance on formative assessments, such as exit tickets.
- The materials guide teachers on how to interpret student performance on summative assessments. Unit assessments provide a rubric for scoring student performance as proficient, developing, and emergent for each prompt on the assessment. The rubric provides specific guidance on strengths, gaps and common misconceptions, that led to the score received. For example, in the third prompt for grade 1, Unit 2: Geometry's Unit Assessment, if a student "accurately composes all five shapes," the student is scored as proficient in that task. In the same task, if a student "accurately composes four shapes," the student will be scored as developing. Students who "accurately compose three or fewer shapes" are scored as emergent. The materials also provide a "Class Tracker" resource for each assessment that correlates with each prompt on the assessment. This tracker allows teachers to place student names into their corresponding ratings. For example, in prompt one of grade 1, Unit 4: Time's Unit Assessment, students are required to tell the time listed on digital clocks. A student who correctly reads the time on all the "Digital Clock" post-assessment cards would receive a proficient rating and their name would be recorded in the "Proficient" column on the tracker. A student who accurately reads the time on three cards would receive a developing rating and their name would be recorded in the "Developing" column on the tracker. Students who can accurately read fewer than three cards correctly would receive an emerging rating, and their name would be recorded in the "Emerging" column on the tracker.
- In each unit assessment, a section called "Responding to Student Performance" provides activities for each prompt student who struggled with providing additional practice. For example, the "Responding to Student Performance" section of the grade 1, Unit 3: Fractions Unit Assessment states that "if students struggle with Prompt 3, provide them with

opportunities to engage with the lesson titled 'Fraction Sports, Part 2' and 'Fraction Bump.'" These lessons are not specifically intervention lessons in which students are provided another tool or strategy to try to master the content. Rather, they are lessons that have already been taught. If students do not struggle with these prompts, teachers are given "Scaffold-Forward" lessons as an option for extension. The "Scaffold-Forward" lessons are additional to and different from the "Concept Development" lessons.

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

- The materials include guidance on activities that can support students who need more support. Unit Assessments include a rubric that provides guidance on creating small groups, including suggested tasks for students who struggle with assessment tasks. Each unit assessment includes a "Responding to Student Performance" section, which provides activities for each prompt students struggled with, to provide additional practice. For example, the "Responding to Student Performance" section of grade 1, Unit 2: Geometry's Unit Assessment 2 advises teachers that students who struggle with the third prompt should be provided opportunities to "engage with the lessons titled 'Space Shapes' and 'Composing Animals.'"
- In grade 1, Unit 5: Addition and Subtraction's Unit Assessment 1, the materials advise teachers that "if students struggle with Prompt 4, provide them with opportunities to engage with the lessons titled 'Pumpkin Fun,' 'Birds on a Line, Part 2,' and 'Baking and Eating Cupcakes, Part 2,' focusing on separating change unknown problems." These lessons are not specifically intervention lessons in which students are provided another tool or strategy to try to master the content. Rather, they are lessons that have already been taught.
- Guidance is also given for teachers to respond to student data in which the students mastered the content of the assessment and require an extension. For example, in the grade 1, Unit 9: Data Analysis Unit Assessment, the materials suggest that students who are proficient with prompts 1-3 engage in the "Scaffold-Forward" lesson titled "Vacation Time."

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**Materials include tools for students to track their own progress and growth.**

- The materials include a student-friendly data sheet that can be used for each assessment, which allows students to track their scores on assessments. The instructions for the student trackers state, "Prompt students to shade the number of rectangles that equals the number of points they scored." The tracker includes bar models for the unit pre-assessment and end-of-unit assessments. For example, grade 1, Unit 6: Numbers to 120 includes a student tracker for the pre-assessment and each of the three-unit assessments.
- Grade 1, Unit 7: Money & Financial Literacy student tracker includes bar models for students to color in for the unit pre-assessment and unit assessment.
- The student tracker for grade 1, Unit 4: Time includes bar graphs that teachers fill out according to student performance. There are six bars for the first bar graph (the pre-assessment) and nine bars for the second bar graph (the unit assessment). The bars for each



assessment are the same size and are partitioned into different quantities to match the corresponding assessment. Students can compare the heights of the shaded regions for each bar to track their growth.

- Several of the grade 1 pre-assessments assess TEKS from grade K that are vertically aligned to the grade-level standards being taught in the unit. For example, grade 1, Unit 8: Measurement pre-assessment covers TEKS K.7(A) and K.7(B). Grade 1, Unit 8: Measurement unit assessment covers TEKS 1.7(A) - 1.7(D). The bar models measure different standards and, therefore, comparing them side-by-side is misleading.

## Supports for All Learners

3.1	Differentiation and Scaffolds	8/8
3.1a	<a href="#">Materials include teacher guidance for differentiated instruction, activities, and/or paired (scaffolded) lessons for students who have not yet reached proficiency on grade-level content and skills.</a>	3/3
3.1b	<a href="#">Materials include pre-teaching or embedded supports for unfamiliar vocabulary and references in text (e.g., figurative language, idioms, academic language). (T/S)</a>	2/2
3.1c	<a href="#">Materials include teacher guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skills.</a>	3/3

**The materials include teacher guidance for differentiated instruction, activities, and/or paired (scaffolded) lessons for students who have not yet reached proficiency on grade-level content and skills. Materials include pre-teaching or embedded supports for unfamiliar vocabulary and references in text (e.g., figurative language, idioms, academic language). Materials include teacher guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skills.**

Evidence includes, but is not limited to:

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

- The materials include differentiated lessons for students who have not yet demonstrated proficiency in grade-level content on the pre-assessment and unit assessment(s). The grade 1 "Scaffold Back" lessons are aligned to the grade K TEKS. If students do not demonstrate proficiency in the unit pre-assessment, the materials guide teachers to a set of "Scaffold Back" lessons. These lessons correspond to each prompt students were unsuccessful with in the pre-assessment. For example, the pre-assessment for grade 1, Unit 1: Addition and Subtraction, Part 1 provides the following guidance for teachers: "If students struggle with Prompt 1, provide them with opportunities to engage with the lessons titled 'Ten Frame Talk' and 'How Many Cupcakes?'" The materials also direct teachers to "focus on joining problems."
- The "Lesson Suggestions" section provides scaffolded support that is embedded in each lesson. This section contains a bulleted list of suggestions for the teacher, including scaffolding tips, suggested questioning, and ways to enhance or change the lesson. For example, in the grade 1, Unit 8: Measurement lesson titled "Playroom Items," the materials remind teachers that "students can continue to practice this skill by measuring different items using different tools such as paper clips, inch tiles, centimeter cubes, etc."
- Each unit overview includes a "Spiral & Interleaved Practice Opportunities" section. This section contains recommendations for spiral review and extra practice. For example, the overview for grade 1, Unit 7: Money and Personal Financial Literacy states, "Students may complete the Money and Personal Financial Literacy Unit Interleaved Practice found at the

end of this unit. The Daily Energizers serve as spiral review or spaced retrieval opportunities throughout the program."

- The materials provide guidance for teachers to use a variety of instructional modalities to support students who have not yet reached mastery. For example, in the grade 1, Unit 1: Addition and Subtraction, Part 1 lesson titled "Ten More & Less: I have...; Who has...?" the materials direct teachers to "provide students with tools—such as Double Ten Frame Work Mats and two-color counters or linking cubes—to organize and represent the cards being read."

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**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 pre-teaching and embedded supports for unfamiliar vocabulary in unit overviews and within lessons.
- The materials include a vocabulary list in each unit overview, which includes a section titled "Vocabulary/Academic Language." The materials suggest using the list of terms "during instruction along with students' informal language. Doing so helps bridge students' understanding from informal to formal." The materials go on to say that "the terms can also be used to create a word wall," advising teachers to "connect [the terms] to students' experiences in order to authentically introduce students to academic vocabulary."
- The grade 1, Unit 2: Geometry "Vocabulary/Academic Language" section provides definitions of unit vocabulary. This is the only unit for which definitions are provided. For example, an *angle* is defined as "a figure formed by two rays or lines that share a common endpoint." The materials go on to explain that "the 'openness,' or space inside an angle, can be measured in degrees. Students may refer to an angle as a 'corner.'" This word and definition are not aligned to the TEKS for grade 1.
- The grade 1, Unit 4: Time "Content Summary" section instructs teachers that "instruction should involve attaching formal vocabulary to the informal descriptions students create. Students may explain [that] they notice corners or 'pointy parts.' Use this opportunity to introduce the terms *vertex* or *vertices*." This is the only guidance on vocabulary instruction that the materials offer to teachers.
- In the "Shape Sorting" lesson, students sort various shapes, and teachers facilitate a conversation about students' observations. This lesson is a precursor to the following lessons in which students explore specific classifications of shapes. This lesson also guides teachers to a specific "Scaffold Back" lesson if students struggle with vocabulary from previous grade levels.
- Lessons include opportunities to create anchor charts for new vocabulary. These anchor charts are utilized during future lessons. For example, in the lesson titled "Cut It In Half: Pizza Fractions" in Unit 3: Fractions, students create halves, and then teachers name this term. The class starts an anchor chart for "Halves." The class adds different examples of halves to this anchor chart in the lessons titled "Fraction Strips" and "Halves: Sharing a Cake."
- The Lesson Internalization Overview encourages teachers to reflect on the academic vocabulary embedded in each lesson. The overview also provides guidance on how to connect academic vocabulary to basic vocabulary. Step 5 of the "Lesson Internalization" process

prompts teachers to consider the following questions: "What academic vocabulary is embedded in the lesson? How will we connect academic vocabulary to basic vocabulary?"

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**Materials include teacher guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skills.**

- Some of the lessons include a "Scaffold Forward" section to enrich and extend learning for students who have demonstrated proficiency in grade-level content and skills. For example, the "Scaffold Forward" section of the grade 1, Unit 3: Fractions lesson titled "Pattern Block Fractions" states, "If students are ready, prompt them to work through Pattern Block Fractions Extension Task Cards. It may be beneficial to discuss the other fractional quantities listed on the Pattern Block Fractions Extension Task Cards before releasing students to complete them." In the grade 1, Unit 2: Geometry "What is a Square?" lesson, the materials suggest that teachers "extend this lesson by asking students to identify other right angles around the classroom or among other shapes in the set. Prompting students to identify squares around the room or playground is also a great exercise."
- The materials include extension and enrichment lessons for students who demonstrate proficiency in grade-level content on the unit assessment(s). If students demonstrate proficiency in the unit assessment(s), teachers are guided to a set of lessons that include a special "Scaffold Forward" section. This resource allows teachers to extend content for students who are ready. For example, in grade 1, Unit 6: Numbers to 120, Unit Assessment 1 suggests, "If students are proficient with Prompts 1-3, engage them in the lessons titled 'Counting Collections, Part 2: Scaffold Forward' and 'Counting Objects: Scaffold Forward.'" The unit assessment for grade 1, Unit 3: Fractions states that "if students are proficient with Prompt 1-4, engage them in the lessons titled 'Pattern Block Fractions: Scaffold Forward,' 'Candy Straws: Scaffold Forward,' 'Fourths: Sharing a Cake: Scaffold Forward,' and 'Fraction Bump: Scaffold Forward.'" It is possible that students might have already completed the "Scaffold Forward" suggested activities when the teacher was initially teaching the lesson.
- The materials provide opportunities for enrichment through cross-curricular activities for students who have demonstrated proficiency in grade-level content. For example, in the unit assessment for grade 1, Unit 8: Measurement, the materials state, "If students are proficient with Prompts 1 - 2, engage them in the lesson titled 'Playroom Objects.'" This lesson is an example of a cross-curricular activity as it combines reading a book titled *If the Shoe Fits (Nonstandard Units of Measurement)*, a written response, and the math concept of measuring.

## Supports for All Learners

3.2	Instructional Methods	13/13
3.2a	<a href="#">Materials include prompts and guidance to support the teacher in modeling, explaining, and communicating the concept(s) to be learned explicitly (directly).</a>	6/6
3.2b	<a href="#">Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches.</a>	4/4
3.2c	<a href="#">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.</a>	3/3

**The materials include prompts and guidance to support the teacher in modeling, explaining, and communicating the concept(s) to be learned explicitly (directly). Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using various instructional approaches. 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.**

Evidence includes, but is not limited to:

**Materials include prompts and guidance to support the teacher in modeling, explaining, and communicating the concept(s) to be learned explicitly (directly).**

- Materials include step-by-step instructions in each lesson plan to support the teacher in modeling the concepts to be learned directly and explicitly. In the grade 1, Unit 4: Time lesson titled "Introducing the Minute Hand," the "Lesson Facilitation" section includes six steps that explicitly guide the teacher in modeling the concepts. This lesson directs the teacher to read *The Grouchy Ladybug* to the class. The teacher is then given instructions to model telling time on a clock. Step three provides directions and scripted sentence stems that state, "Display the clock that reads five o'clock from the book. Ask students how this clock is the same and different from the clocks in previous lessons. Use the following sentence stems: a. This clock is the same because ... b. This clock is different because ...." In the grade 1, Unit 8: Measurement lesson titled "Measuring with Color Tiles," step two of the "Lesson Facilitation" section states, "Write 'Measuring Length' at the top of the piece of chart paper, then ask students how they used the tools to measure the length. Write student ideas just below the title on the anchor chart as they share." This explicit guidance directs what teachers should do to teach students the concept using an anchor chart that they create together.
- The materials include step-by-step instructions in each lesson plan to support the teacher in explaining the concepts to be learned directly and explicitly. For example, the grade 1, Unit 2: Geometry lesson titled "Two-Dimensional Shape Bump" includes a "Lesson Facilitation" section that guides the teacher to "spend a moment reviewing the different shapes students have explored. Ask students how they know if they see: a triangle; circle; rectangle; rhombus; square; or hexagon. Students may reference the anchor charts as needed. Explain that students will learn a new game called 'Shape Bump.' Introduce the procedures below by

playing with a student or against the class and explaining your thought process as you play. This game can become an independent workstation for students to practice identifying shapes." In grade 1, Unit 1: Addition and Subtraction, Part 1 lesson titled "Ten Fireflies," step five of the "Lesson Facilitation" section prompts teachers to facilitate student learning. One of the prompts states, "Say: 'Now, there are nine fireflies outside the jar and one firefly in the jar.' Allow students time to model this on their Glass Jar Work Mat. Discuss how many total fireflies there are altogether. 'Ten.' Then, write ' $10=9+1$ .'" This example then gives the teacher explicit directions to observe the students.

- The materials include step-by-step instructions in each lesson plan to support the teacher in communicating the concepts to be learned directly and explicitly. The materials provide questions and examples of student answers to help the teacher communicate the concept students are learning. For example, the "Lesson Facilitation" section for the grade 1, Unit 3: Fractions lesson titled "Cut It In Fourths: Pizza Fractions" directs teachers to "engage [students] in a think-pair-share routine by asking them how they know they have created fourths. They may say the following: 'The four pieces of pizza are the same size. I would eat a piece of the pizza because they are the same size.'"

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### **Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches.**

- The materials include teacher guidance and recommendations for effective lesson delivery using a variety of instructional approaches, such as think-pair-share routines, sentence stems, partner games and activities, anchor charts, and read-aloud. For example, in the grade 1, Unit 6: Numbers to 120 lesson titled "120 Chart Exploration," students use linking cubes to explore a 120 Chart Work Mat. The teacher creates an anchor chart for students to refer to that includes student observations. The materials for grade 1, Unit 4: Time include a detailed lesson plan titled "Complete the Clock." The "Lesson Facilitation" section instructs teachers to review content from the previous lesson, introduce a new game called "Complete the Clock," and allow students to work in partners while actively monitoring for understanding. Students will fill out one Complete the Clock exit ticket.
- The materials include teacher guidance for effective lesson delivery using various instructional strategies, including number sense routines and discourse. In the grade 1 daily energizers, routines such as "What Do You See" and "Odd One Out" ask students to talk with a partner about the mathematical relationships they see in the provided images. For example, in week one of the daily energizers, teachers show students an image of six pennies in which five of the pennies appear face up. Students are asked to share what they see. The materials guide the teacher to encourage mathematical relationships in student responses such as "there are five pennies that are face up."
- The materials include teacher guidance and recommendations for effective lesson facilitation using a variety of instructional strategies such as hands-on exploration, partner talk, and concrete and visual representations. For example, in the grade 1, Unit 3 lesson called "Pattern Block Fractions," step one of the "Lesson Facilitation" section states, "Arrange students in pairs, and hand out a set of pattern blocks to each pair. Allow students a few minutes to explore the pattern blocks. Walk around and listen for students who are discussing the



relationships between the pattern blocks. Students may say, "The red trapezoid is half the yellow hexagon." Next, students share their observations with the class before completing a set of task cards with their partner. These cards require students to reason about the fractional relationships between the pattern blocks, such as "If blue rhombus equals one, what equals halves?" At the end of the lesson, students complete an exit ticket that includes a written component in which students justify how they know the hexagon has been partitioned into halves and fourths.

- The materials include teacher guidance and recommendations for effective lesson facilitation using sentence stems to guide mathematical discourse. For example, in the grade 1, Unit 8: Measurement lesson titled "Super Sand Castle," step 11 of the "Lesson Facilitation" section instructs the teacher to engage the students in mathematical discourse. This allows teachers to check for student understanding during a measurement activity. The materials provide sentence stems to help guide student discourse, such as, "I notice it takes\_\_ purple rods and \_\_ red rods to equal the length of...."

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**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 materials provide a variety of options and resources for students to practice and apply the concepts learned (whole group, partner work, individual). In grade 1, Unit 3: Fractions lesson titled "Fraction Sort, Part 2," the "Lesson Facilitation" section begins by providing guidance for teachers to engage students in partner work. This work requires students to sort cards as well as whole-group share how they sorted the cards. Steps one through three provide teachers with guidance to engage students in partner work and whole group sharing. Steps five through seven include independent practice instructions. Steps eight and nine include additional partner collaboration for discussion and writing. The "Lesson Suggestions" section provides variations for partner work, small group activities, and workstations in which students are tasked with cutting out shapes and sorting them into columns on an independent recording sheet.
- The grade 1, Unit 8: Measurement lesson titled "Shorter or Longer?" has multiple formats for instruction and provides teachers with guidance on effective lesson implementation. The materials direct teachers to gather students in a whole-group setting for a read-aloud of the book *Where's My Teddy?* Students will work in pairs to measure teddy bears of various sizes using string. Students will then answer a "Shorter or Longer?" exit ticket independently. Students will next work in pairs for their workstation and practice the skill of measuring with a string using the "Shorter or Longer?" work mat.
- The materials provide guided instructions for teachers to teach the routines necessary to effectively implement different types of practice and design a learning environment that helps students focus on the content to be learned. The materials include an Implementation Support Guide that explains the lesson components. Each day begins with a daily energizer that "can be used to keep students thinking creatively about the math concepts they are learning and as a method of spiraling back or using spaced retrieval for previously learned concepts." The components continue with a whole-group mini-lesson, including a "Lesson



Facilitation" section with step-by-step directions for each lesson. The components also include a lesson closure that "can be found in the last step or last few steps in the 'Lesson Facilitation' section. The closure may consist of a debrief question/conversation or an exit ticket." The guide also provides time for workstations that may include activities and games introduced in either the current unit or prior units, as well as small group instruction. According to the materials, the small group instruction "allows the teacher to use information from the closure activity to address any misconceptions students may have about the lesson content."

## Supports for All Learners

3.3	Supports for Emergent Bilingual Students	11/11
3.3a	<a href="#">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.</a>	2/2
3.3b	<a href="#">Materials include implementation guidance to support teachers in effectively using the materials in state-approved bilingual/ESL programs.</a>	1/1
3.3c	<a href="#">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.</a>	8/8
3.3d	<a href="#">If designed for dual language immersion (DLI) programs, materials include resources that outline opportunities to address metalinguistic transfer from English to the partner language.</a>	Not scored

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

Evidence includes, but is not limited to:

**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.**

- Linguistic accommodations are designed to engage students in using increasingly more academic language. Each unit overview includes a list of the ELPS covered, a section called "Sentence Stems For Language Development," and a section called "ELPS Connections," which includes guidance for linguistic accommodations. For example, in grade 1, Unit 6: Numbers to 120, the "ELPS Connections" section states, "Students continue to engage in shared reading opportunities to provide context for understanding numbers up to 120. They are also given several hands-on learning opportunities that connect to picture books. Students are also afforded the opportunity to represent numbers with pictorial representatives. Students engage in several lessons using and reusing the academic language associated with numbers up to 120. For example, counting allows [students] to practice using the word form of numbers."
- The materials provide guidance at the lesson level for some lessons to provide accommodations for multiple levels of language proficiency. For example, the "Progressions

by Alba Grade 1 Multilingual Supports" document for Unit 2 states, "This unit has several cognates. Discuss these connections with your beginner and intermediate students. When working through application activities such as "Mystery Bags," provide a word bank with words in both English and Spanish. This will support students with speaking and writing about the shapes."

- Each lesson in the materials includes a "Content and Language Objectives" resource, a "Language Standards" section with ELPS listed, and guidance for teachers to utilize sentence stems to help students explain their thinking. For example, the grade 1, Unit 3: Fractions lesson titled "Halves: Sharing a Cake" includes the following sentence stems: "I agree / disagree with \_\_\_\_ because...."; "Can you tell me more about...."

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

- The Grade 1 Program Overview includes an ELPS Map with a list of recurring opportunities for language development throughout the materials. These opportunities include "Think-Pair-Share" routines, sentence stems, partner games, anchor charts, and vocabulary. This ELPS Progression gives a basic overview of the skills practiced in each unit. For example, the grade 1, Unit 4: Time "ELPS Progression" section states, "During this unit, students have opportunities to engage in shared writing about tools for telling time. They use prior knowledge to tell time to the hour and half hour and are provided simple and complex sentence stems to engage in conversations about time."
- The Unit ELPS Overview located in the "Progressions by Alba Grade 1 Multilingual Support" document lists the ELPS by identifying numbers for each unit. The next section, "Engaging Multilingual Learners," suggests specific strategies to support emergent bilingual students such as honoring students' native language by allowing them to share first in their preferred language. The guidance also suggests pairing students at different levels of proficiency to support their English language development.
- Grade 1, Unit 6: Numbers to 120 includes a lesson plan titled "Extending the Number Path." The section titled "Language Standards" lists the ELPS for the lesson. The ELPS for this lesson include the following: "2(C): Learn new language structures, expressions, and basic and academic vocabulary heard during classroom instruction and interaction," "2(G): Understand the general meaning, main points, and important details of spoken language ranging from situations in which topics, language, and contexts are familiar to unfamiliar," and "3(J): Respond orally to information presented in a wide variety of print, electronic, audio, and visual media to build and reinforce concept and language attainment. The "Lesson Facilitation" resource guides teachers to use a "Think-Pair-Share" routine to activate students' prior knowledge about the "Number Path" resource from previous lessons. Students then complete the Number Path with numbers 20-30. The teacher asks clarifying questions and teaches students about expanded form. The lesson finishes with students engaging in another "Think-Pair-Share" activity in which they discuss the meaning of expanded form with a partner. The ELPS Map of the grade 1 Program Overview includes a list of opportunities for students to practice their language development. For example, the third bullet states, "Partner games and

activities allow students to use peer support while practicing listening and speaking using basic and academic language."

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**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.**

- The materials include embedded guidance for teachers to support EB students in developing academic vocabulary through oral and written discourse. For example, in the "Progressions by Alba Multilingual Supports" document, the "Pre-teaching Vocabulary" section includes multiple strategies to support students. To develop academic vocabulary through oral discourse, the materials suggest students engage in describing each word in the language of their choice. To develop academic vocabulary through written discourse, the materials guide the teacher to prompt students to represent each word by drawing a picture.
- The materials include guidance for increasing comprehension through oral and written discourse. For example, the "Multilingual Supports" document suggests honoring students' native language by allowing them to speak in their preferred language when discussing math topics. The materials recommend shared writing for the building of anchor charts with students. The materials also suggest adding students' native language to anchor charts.
- Grade 1, Unit 4: Time includes a lesson plan titled "Introducing the Minute Hand." The teacher reads a book titled *The Grouchy Ladybug*. The teacher prompts students to summarize the book in a "Think-Pair-Share" routine. The guidance for teachers prompts students to connect math vocabulary with their comprehension of the book. The materials include prompts for the students to compare the teacher's clock with the clocks from the book using sentence stems. The teacher is provided a list of vocabulary words to focus on during the lesson. The materials include embedded guidance for teachers to support emergent bilingual students in building background knowledge through oral discourse via shared reading activities. For example, the grade 1, Unit 3: Fractions lesson called "Cut It In Half: Pizza Fractions" utilizes the story *In the Half Room* to introduce fractions for the entire class.
- The materials build background knowledge through connections in the literature. For example, grade 1, Unit 2: Geometry includes a lesson called "Constellation Creations." The lesson includes the book *Goodnight Constellations*. The teacher begins the lesson by asking students what they know about constellations. The teacher shows the first page and engages students in a "Think-Pair-Share" routine by asking them to make observations after reading the page. The teacher continues to read the book and stops to discuss the shapes when appropriate. After reading, the students use geoboards and rubber bands to create constellations. The teacher facilitates the "Think-Pair-Share" routine, and students explain the shapes they used to create their constellation.
- Guidance for teachers supports emergent bilingual students in making cross-linguistic connections through oral and written discourse. For example, Unit 3's "Multi Linguistic Considerations" resource directs teachers to do the following: "Provide a word bank or allow beginner students to respond to the writing prompt in their native language for the lesson 'Pattern Block Fractions' and 'Halves: Sharing a Cake.'" Providing visuals supports students in connecting languages. To make cross-linguistic connections with vocabulary through written

discourse, the "Multi Linguistic Supports" resource for Unit 3 suggests the following: "Check for understanding by prompting students to represent each word by drawing a picture, using hand gestures, or describing each word in the language of their choice."

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

- The materials are not designed for dual language immersion (DLI) programs.

## Depth and Coherence of Key Concepts

4.1	Depth of Key Concepts	3/3
4.1a	<a href="#">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.</a>	1/1
4.1b	<a href="#">Questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards.</a>	2/2

**The 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. Questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards.**

Evidence includes, but is not limited to:

**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.**

- The materials include practice opportunities that engage students in the appropriate level of rigor aligned to the TEKS. For example, in the grade 1, Unit 2: Geometry lesson titled "Mystery Bags," students identify three-dimensional solids and two-dimensional shapes, describing their attributes using formal geometric language. In this lesson, the teacher distributes mystery bags and recording sheets to partners. The students feel inside each bag, share their observations with partners, and draw or write on recording sheets. Once students finish describing their shapes and solids, the teacher debriefs the lesson by asking questions such as, "How were some of the figures similar? How were some of them different? What helped you decide what figure was inside the bag?"
- The materials identify concepts and provide real-world tasks and problem-solving situations aligned to the TEKS. For example, in the grade 1, Unit 6: Money and Personal Financial Literacy lesson titled "Money Game," students play a game where they identify coins and distinguish between wants, needs, saving, spending, and charitable giving. The teacher directs students to make connections between their experiences in the game and their experiences in real life. The skills in this game extend to the end of unit assessment.
- The materials identify concepts and provide real-world tasks and problem-solving situations aligned to the TEKS. For example, in the grade 1, Unit 8: Measurement lesson titled "Playroom Objects," students solve the real-world task of determining which objects will fit in a playroom by comparing the lengths of objects to the length and width of the playroom. The teacher reviews the book *If the Shoe Fits* (Nonstandard Units of Measurement). Students make connections regarding how the mice in the book use paper clips to measure if something will fit in their playroom. The students find three different items for the mice. Students use eight paper clips to find three items: one that will fit in the playroom, one that is the same size as the playroom, and one that will not fit. Students use the "Playroom Objects Recording Sheet" to

draw the three objects. Students use a sentence stem to explain why one of their items will not fit.

- The materials include tasks that progressively increase in rigor and complexity as the unit progresses. For example, the grade 1, Unit 4: Time lesson called "Hour Hand Clock Swat" requires students to demonstrate a basic understanding of the difference between the hour hand placement on an analog clock when the time falls exactly on the hour, versus when it falls on a time that is half past the hour. In this lesson, students work in two groups to play a game titled "Swat It." During the game, one person from each group comes to the class clock with a fly swatter. The teacher displays the Hour Hand Swat It Card, which displays times to the nearest hour and half hour. The first student to swat where the hour hand should be pointing wins that round. Students justify their thinking using sentence stems before completing an exit ticket in which they draw the hour hand on blank analog clocks for the following times: half past 12, 2 o'clock, and half past 7. As the unit progresses, the teacher introduces the minute hand to students as they practice telling time to the nearest hour and half hour.

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### **Questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards.**

- Questions and tasks in the materials progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards. In grade 1, Unit 2: Geometry, students begin by sorting, identifying, and classifying two-dimensional shapes. In the lesson titled "Shape Sorting," the teacher asks the students to sort two-dimensional shape cutouts and explain the reasoning behind their sorting. Later in the unit, a lesson titled "The Shape Shop" requires students to identify and create two-dimensional figures. The teacher asks questions to debrief such as, "What went through your mind when you needed to make a certain shape?" and "Which shape was the most difficult to work with, and why?"
- In grade 1, Unit 8: Measurement lesson titled "Super Sand Castles," students measure items using two different units and describe why the measurements differ. The teacher begins by reading the book *Super Sand Castle Saturday*. Students discuss what happens when the characters measure with their shovels and spoons. Students work together to measure the heights of different sand castles using a set of Super Sand Castle Task Cards and Cuisenaire Rods (purple and red). Students record their observations on a recording sheet. Students then use a sentence stem to explain why it takes more red rods than purple rods to equal the height of the sand castle. When students finish the task, the teacher asks increasingly complex questions such as, "a. What do you notice about the number of purple rods versus the number of red rods it took to equal the height of the castle? b. Why did it take more red rods than purple rods to equal the height of each sand castle? c. Why did it take fewer purple rods than red rods to equal the height of each sand castle?"
- The materials include tasks that increase in rigor and connect concepts within and across units. For example, in the grade 1, Unit 3: Fractions lesson titled "Fourths: Sharing a Cake," students use skills from the previous lesson (partitioning shapes into halves) and extend their skills to partitioning shapes into fourths. Teachers direct students to find various ways to partition shapes and justify their reasoning.



- In grade 1, Unit 6: Numbers to 120, Unit Assessment One, the teacher places a set of fifty-four ungrouped objects in front of the student. The student counts the objects and records the number of tens and ones. In grade 1, Unit 6: Numbers to 120, Unit Assessment Two, the teacher prompts the student to decompose the number 46 in three different ways using linking cubes. The teacher then asks the student how they know each representation equals 46.

## Depth and Coherence of Key Concepts

4.2	Coherence of Key Concepts	12/12
4.2a	<a href="#">Materials demonstrate coherence across courses/grade bands through a logically sequenced and connected scope and sequence.</a>	2/2
4.2b	<a href="#">Materials demonstrate coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts.</a>	3/3
4.2c	<a href="#">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.</a>	3/3
4.2d	<a href="#">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.</a>	4/4

**The materials demonstrate coherence across courses/grade bands through a logically sequenced and connected scope and sequence. Materials demonstrate coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts. 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. 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.**

Evidence includes, but is not limited to:

**Materials demonstrate coherence across courses/grade bands through a logically sequenced and connected scope and sequence.**

- The grade 1 Program Overview explains the learning progression of the materials: "Progressions by Alba Math is thoughtfully sequenced based on the most up-to-date research about how students learn mathematical concepts. This allows us to focus on scaffolding instruction. While students are engaged in the Concept Development phase of learning, some students need prior concepts reinforced, and others are ready for extensions. This problem has been addressed by including Scaffold Back and Scaffold Forward Lessons, allowing teachers to easily differentiate to meet all students' needs." A section within the overview titled "The Mathematics Concepts are Intertwined" explains that "the mathematics concepts found at each grade level are connected, rather than teaching isolated concepts and skills." The materials provide a logical sequence with a suggestion for the number of instructional days for each sequence. The Implementation Support Guide includes guidance and a template for creating these documents to fit the needs of the district or campus.
- The materials include suggested tools, representations, and scaffolds to build coherence across grade levels. For example, in the "Content Summary" section of the grade 1, Unit 1: Addition and Subtraction, Part 1 Unit Overview, the materials note that, in kindergarten, students solve joining and separating problems with the result unknown, as well as part-part-

whole problems with the whole unknown, within ten. In grade 1, students build on their kindergarten knowledge and continue solving joining and separating result-unknown problems within twenty. Students begin to explore joining and separating change-unknown problems. The materials note that "this unit prepares students for Unit 5: Addition and Subtraction, Part 2 when students explore all of the problem types and then apply basic fact strategies such as using ten and subtracting to a ten."

- Materials demonstrate a vertical alignment of mathematical concepts through a logically organized scope and sequence. For example, in grade 1, Unit 2: Geometry, students learn that a shape's orientation does not affect its classification. The unit briefly explains the nuances of squares, rectangles, and rhombuses as quadrilaterals. The Unit Overview shows teachers how their instruction on two-dimensional shapes will build in grade 2 when "students will expand these understandings to classify polygons based on the number of sides in second grade."

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

- The materials provide guidance for how student understanding of a unit concept relates to other concepts students will learn in the course (or in another course in the grade 1 Program Overview). As Unit 2: Geometry states, "During this unit, students continue working with both 2D shapes and three-dimensional (3D) solids. Hexagons and rhombuses are added to the 2D shapes, and both rectangular and triangular prisms are added to the 3D solids. Students also use spatial reasoning to compose 2D shapes. While students are introduced to regular and irregular shapes in first grade, they build on this knowledge while exploring up to twelve-sided polygons in second grade. Students continue to engage in activities from this unit in the daily energizers, workstations, interleaved practice, and in small groups."
- The grade 1 Unit Rationale demonstrates coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts. The "Unit Rationale" section for Unit 1 explains that it exposes students to solving addition and subtraction problems within twenty. Students solve joining and separating change-unknown problems. Student work in Unit 1 prepares students for Unit 5: Addition & Subtraction, Part 2, when students continue to explore those concepts, but are also introduced to joining and separating start-unknown problems as well as comparison problems. Students begin exploring the idea of using ten to regroup when adding and subtracting. These discoveries in Unit 5 will help prepare students for representing and solving problems within 1,000 and mastering basic facts in second grade.
- The materials provide a structured progression and/or scope and sequence of mathematical concepts that follow a logical flow of development. For example, in grade 1, Unit 6: Numbers to 120, the Unit Overview includes a Numbers to 120 Progression 1st Grade Content Map that explains, "In this unit, students extend their understanding of place values to the hundreds place. They work on an understanding of unitizing ten—the individual objects are equivalent to one ten. Students use their knowledge of place value to generate numbers that are greater or less and represent numbers up to one hundred twenty in different ways. Students are introduced to the relational symbols of  $>$  (greater than) and  $<$  (less than) as they use place value understandings and open number lines to compare numbers. The work they do here

prepares them to extend their understanding of place value to the thousands place in second grade." The map includes scaffold-back information citing the kindergarten TEKS, as well as concept development and scaffold-forward progressions using the first-grade TEKS.

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**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.**

- The materials demonstrate coherence across units by connecting the content and language students learn in the current grade level course to the content they will learn in future grade levels. In grade 1, Unit 3: Fractions, students are exposed to fractions for the first time. Students partition two-dimensional figures into equal parts, identifying examples and non-examples of halves and fourths. In grade 2, students will continue this work by partitioning shapes into eighths, identifying examples and non-examples, as well as exploring the relationship between the number of pieces that make up the whole and the size of those pieces.
- For example, in grade 1, Unit 6: Numbers to 120 Unit Overview, the "Content Summary" section explains student learning for the unit: "The overall goal of this unit is for students to unitize ten or think about groups of ten objects as a unit." Students will understand ten as ten ones, see ten as a unit, and learn to work with units of ten. Students will formalize this understanding in grade 2 as they learn about place-value concepts (i.e., ones place, tens place, and hundreds place). When students have a solid understanding of unitizing, they explore pre-grouped objects such as base ten blocks in grade 2.
- The materials demonstrate coherence across units by connecting the content students learned in previous grade levels to the content they will learn in the current grade level. For example, in grade K, students organized data by collecting and sorting objects. They then used those objects to create a real object, and later, picture graphs. In grade 1, Unit 9: Data Analysis, students build on this foundation as they draw conclusions and generate and answer questions using information from picture and bar-type graphs.

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**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.**

- The materials demonstrate coherence at the lesson level by connecting students' prior knowledge of concepts from the current grade level to new mathematical knowledge and skills. For example, in the grade 1, Unit 2: Geometry lesson titled "Composing Animals," the teacher reads the book *Grandfather Tang's Story* and helps students make the connection that the characters are transforming the same way tangrams transform into new figures. Students use tangrams to represent different shapes and animals. At the end of the lesson, students complete an exit ticket, drawing a picture of tangrams grouped together to compose a rectangle.

- At the lesson level, materials scaffold concepts and procedures for students, building on student learning from previous units. For example, in the grade 1, Unit 7: Money and Personal Financial Literacy lesson titled "What's in My Piggy Bank?" students use their prior knowledge from grade K to identify coins, ultimately extending that knowledge to identify coins by value. Additionally, the students describe the relationships between the coins.
- The materials demonstrate coherence at the lesson level by connecting students' prior knowledge of concepts from previous grade levels to new mathematical knowledge and skills. For example, in the grade 1, Unit 9: Data Analysis lesson titled "Vacation Time," students choose a favorite vacation from three pre-selected categories. Students place their choices in a pile and the teacher leads the class in a discussion on how to figure out which vacation was chosen the most. Students may use their knowledge from previous grade levels by suggesting sorting the selections into groups or graphing the choices. The teacher asks guiding questions that guide students to draw conclusions. These questions also encourage students to brainstorm and answer other questions that could be answered using the graph.

## Depth and Coherence of Key Concepts

4.3	Spaced and Interleaved Practice	8/8
4.3a	<a href="#">Materials provide spaced retrieval opportunities with previously learned skills and concepts across lessons and units.</a>	4/4
4.3b	<a href="#">Materials provide interleaved practice opportunities with previously learned skills and concepts across lessons and units.</a>	4/4

**The materials provide spaced retrieval opportunities with previously learned skills and concepts across lessons and units. Materials provide interleaved practice opportunities with previously learned skills and concepts across lessons and units.**

Evidence includes, but is not limited to:

**Materials provide spaced retrieval opportunities with previously learned skills and concepts across lessons and units.**

- The materials provide spaced retrieval opportunities via a "Spiral and Interleaved Practice Opportunities" section. The grade 1, Unit 2: Geometry Unit Overview includes workstations that teachers can utilize as spiral reviews throughout upcoming units. Teachers can find and prioritize a list of fluency-building activities in the Program Overview. Additionally, students can complete the "Number Sense Interleaved Practice" section found at the end of the unit. The daily energizers serve as spiral review or spaced retrieval opportunities throughout the program.
- The materials provide daily energizers that "encourage students to think deeply, share their reasoning, learn from each other, and make connections to the world around them." The "Topic Alignment" section shows the alignment of the daily energizers to the units. For example, the daily energizers for grade 1, Week Five review and/or activate students' prior knowledge for the following grade 1 units: Addition and Subtraction, Geometry, Numbers to 120, and Data Analysis.
- Each week of the daily energizers covers a variety of units and topics, connecting students' previous learning to topics students are currently working on, or activating students' prior knowledge for their current learning. For example, the daily energizers for grade 1, Week 34 include one activity on time, one activity on addition and subtraction, one activity on money and personal financial literacy, one activity on numbers to 120, and one activity on measurement.
- The daily energizers include tasks to activate students' prior knowledge before the start of a lesson or closing activity. For example, in the daily energizers for grade 1, Week 16, 1.080, the materials ask students to answer a prompt asking if a rectangle is equally partitioned into fourths. This prompt serves as a review of equal parts from previous lessons in grade 1.
- The daily energizers for grade 1, Week 1, 1.002 include a "Puzzling Problem" slide showing five grasshoppers. The teacher asks, "If two grasshoppers leave, how many will be on the grass?" Students are encouraged to explain their thinking strategies along with their solutions. This is a review of previous learning from grade K.

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**Materials provide interleaved practice opportunities with previously learned skills and concepts across lessons and units.**

- The materials include opportunities to revisit concepts in different contexts throughout a unit via interleaved practice. Grade 1, Unit 3: Fractions Interleaved Practice provides practice opportunities with previously learned skills and concepts across units. Concepts covered in this section include geometry, fraction examples and non-examples, and addition and subtraction word problems.
- The interleaved practice opportunities review previously learned skills and strategies as students solve problems. Students must choose a strategy from their previous learning that works best for them. For example, in grade 1, Unit 4: Addition and Subtraction, Part 2 Interleaved Practice, students must find the solution to a joining word problem. Students may solve this problem by adding objects, making a pictorial model, counting on, using a ten frame, etc.
- Grade 1, Unit 9: Data Analysis Interleaved Practice provides four pages of practice opportunities with previously learned skills that teachers can use at their discretion. This practice reviews measurement, geometry, word problems, expanded form, comparing numbers, counting coins, data analysis, and number lines.



## Balance of Conceptual and Procedural Understanding

5.1	Development of Conceptual Understanding	18/18
5.1a	<a href="#">Questions and tasks require students to interpret, analyze, and evaluate a variety of models and representations for mathematical concepts and situations.</a>	12/12
5.1b	<a href="#">Questions and tasks require students to create a variety of models to represent mathematical situations.</a>	2/2
5.1c	<a href="#">Questions and tasks provide opportunities for students to apply conceptual understanding to new problem situations and contexts.</a>	4/4

**The materials include questions and tasks that require students to interpret, analyze, and evaluate a variety of models and representations for mathematical concepts and situations. Questions and tasks require students to create a variety of models to represent mathematical situations. Questions and tasks provide opportunities for students to apply conceptual understanding to new problem situations and contexts.**

Evidence includes, but is not limited to:

**Questions and tasks require students to interpret, analyze, and evaluate a variety of models and representations for mathematical concepts and situations.**

- The materials provide tasks that prompt students to engage with a variety of models and representations to interpret, analyze, and evaluate various concepts. For example, in grade 1, Unit 1: Addition and Subtraction, students develop a strong conceptual understanding of joining and separating change-unknown problems. Students also build on their understanding of basic fact strategies through problems using two-color counters with ten frames and double ten frames, different colored bingo chips, Cuisenaire Rods, linking cubes, and red/blue chain links.
- The materials provide tasks that prompt students to engage with a variety of models and representations to interpret, analyze, and evaluate various concepts. For example, in the "Interleaved Practice" section of grade 1, Unit 4: Time, students draw or build a model to help solve the following problem: "There are 10 fireflies. There are 2 fireflies inside the jar. How many fireflies are outside the jar?" This math problem has a visual model of a glass jar and a sentence stem for students to write their answers in complete sentences.
- The materials include questions and tasks that require students to interpret, analyze, and evaluate a variety of models and representations for mathematical concepts and situations. The first lessons that cover a concept begin with models to build conceptual understanding. For example, in the grade 1, Unit 6: Numbers to 120 lesson titled "Counting Objects," students practice counting a set of objects, as well as representing a number in tens and ones. The teacher shows students a bag with small colored cubes and plastic cups, asking how students "could count to determine the total number of cubes in the bag." As the materials state, students may suggest counting by ones, twos, fives, or tens. The teacher asks students how the cups could help them count the cubes. Next, the teacher hands out one Base Ten Form

Recording Sheet to each student and asks students to make observations. The teacher provides students with sets of linking cubes, small color cubes, craft sticks, and bear counters to count. The teacher also provides students with zip-top bags, rubber bands, plastic cups, and Double-Ten Framework Mats to organize their materials. The teacher tells students that the goal is to determine how many complete tens they can make from each set and how many leftover ones. Students work in groups and the teacher checks for understanding using the sentence stem, "There are \_\_\_\_ bears. I know this because there are ...."

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**Questions and tasks require students to create a variety of models to represent mathematical situations.**

- The questions and tasks in the materials prompt students to create a variety of models to represent their understanding of concepts. In grade 1, Unit 1: Addition and Subtraction, Part 1 lesson titled "What's My Value," students explore numbers that make 10 by building models using Cuisenaire Rods. Once students build a model with the rods that equal 10, they draw their model on the What's My Value Recording Sheet. Students can then explore ways to make 10 with three or more addends.
- The materials prompt students to create various models to represent their understanding of concepts. For example, in the grade 1, Unit 2: Geometry lesson titled "The Shape Shop," students create shapes using various materials and explain their reasoning behind their shape design. Students work with a partner to create shapes according to customers' orders. The teacher gives "orders" to students and allows them to create the shapes using clay, craft sticks, chenille stems, coffee stirrers, construction paper, and other materials. After the lesson, students complete an exit ticket that requires them to draw representations of different shapes.
- The questions and tasks in the materials prompt students to create a variety of models to represent their understanding of concepts. For example, in the grade 1, Unit 7: Money and Personal Financial Literacy lesson titled "Counting Coin Collections," students utilize plastic coins, money grids, recording sheets, and Counting Coin Collections Exit Tickets to demonstrate their understanding. At the beginning of the lesson, students count different collections of coins in more than one way. Lastly, students count and write the value of a set of coins in written format. The exit ticket presents coins as pictures.
- The materials prompt students to create various models to represent their understanding of concepts. For example, in the grade 1, Unit 9: Data Analysis lesson titled "What Do You See?" Students collect data, create a bar-type graph, and analyze the results. The teacher shows the front cover of the book *Duck! Rabbit!* and asks students what they see. Students place craft sticks in cups labeled "duck" and "rabbit" to indicate their choice. The students engage in a think-pair-share routine on arranging the craft sticks. Then, the students arrange the sticks to look like tally marks as a class. The teacher models create a bar-type graph on chart paper, and after answering questions about the data, students create a graph on a work mat.

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

- The materials include questions and tasks that prompt students to apply conceptual understanding to new situations. For example, in the grade 1, Unit 6: Numbers to 120 lesson titled "Looping Numbers," students apply their conceptual understanding to represent and compare numbers using expanded form, standard form, and pictorial models. The teacher hands out the Looping Numbers Work Mat to each student and asks them to make observations. As the materials note, students may notice that "there are rows of dots like in the Dot Array Display Sheet" or "there are more than ten dots in each row. The Dot Array Display Sheet from before had ten dots in a row." The teacher displays a Looping Number Card for all students to see, and students discuss how they can represent the number by drawing loops around the dots. Students then work in pairs to take turns drawing cards, drawing loops, and comparing their numbers.
- The materials include questions and tasks that prompt students to apply conceptual understanding to new situations. For example, in the grade 1, Unit 7: Money and Personal Financial Literacy lesson titled "Money Game," students apply their conceptual understanding of personal finance from previous lessons and to new scenarios. Students make decisions on how to spend the money as they evaluate wants versus needs and goods versus services as they play the game, as well as ways to manage saving, charitable giving, and spending.
- The materials include questions and tasks that prompt students to apply conceptual understanding to new situations. In the grade 1, Unit 8: Measurement lesson titled "How Long?" students learn how to measure objects using non-standard units like craft sticks. In the lesson, students learn foundational measurement concepts such as the importance of laying the unit end-to-end with no gaps when measuring, and how the unit students use to measure should be much smaller than the object they are measuring. For example, students wouldn't measure the length of their finger with a craft stick. Later in the unit, the lesson titled "Playroom Items" allows students to apply this newly acquired understanding to measure classroom objects with paper clips.

## Balance of Conceptual and Procedural Understanding

5.2	Development of Fluency	12/12
5.2a	<a href="#">Materials provide tasks that are designed to build student automaticity and fluency necessary to complete grade-level tasks.</a>	<b>2/2</b>
5.2b	<a href="#">Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures within the lesson and/or throughout a unit.</a>	<b>3/3</b>
5.2c	<a href="#">Materials provide opportunities for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy within the lesson and throughout a unit.</a>	<b>6/6</b>
5.2d	<a href="#">Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches.</a>	<b>1/1</b>

**The materials provide tasks designed to build student automaticity and fluency necessary to complete grade-level tasks. Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures within the lesson and/or throughout a unit. Materials provide opportunities for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy within the lesson and throughout a unit. Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches.**

Evidence includes, but is not limited to:

**Materials provide tasks that are designed to build student automaticity and fluency necessary to complete grade-level tasks.**

- The materials provide tasks designed to build the student automaticity and fluency necessary to complete grade-level tasks. The Facilitation Guide for the daily energizers in grade 1, Week 9 offers daily activities on the following topics: Data Analysis, Geometry, Measurement, and Numbers to 120. In activity 1.045, students use choral counting to count by tens. Students start at 21 and end at 91.
- The materials include daily exercises that target specific skills or concepts that build student automaticity and fluency. For example, in the grade 1 Program Overview, the materials identify fluency targets for each unit and provide an End-Of-Year Fluency Assessment to evaluate student progress within the fluency targets. The materials label lessons addressing these targets with a large "F" in the top left-hand corner. These lessons function as workstations to be used incrementally throughout the year, building students' fluency and allowing their spaced retrieval of the primary focal points. In grade 1, the fluency targets include understanding and applying place value, solving problems with addition and subtraction, identifying and describing two-dimensional and three-dimensional figures, and constructing two-dimensional shapes.
- The materials provide tasks designed to build the student automaticity needed to complete grade-level tasks. For example, in the grade 1, Unit 4: Time lesson titled "Complete the Clock," students write the names of numerals in the correct location on the clock and explain how

they know the correct location. Students play a game called "Complete the Clock" using the Clock Game Board, number cubes, and dry-erase markers. Students find the sum of their number cubes and write the sum on the Clock Game Board.

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

- The materials provide opportunities for students to practice efficient mathematical procedures throughout the unit. For example, activity 1.077 in the Facilitation Guide for grade 1: Daily Energizers, Week 16 includes a section called "Puzzling Problems," which prompts students to share a strategy and a solution. Strategies could vary from making mental images to counting onward from eleven to determine that five cones must have been set out to create sixteen cones. Students relate the number sentence " $11 + \underline{\quad} = 16$ " to the story. The word problem includes a visual of sixteen cones to scaffold students' learning.
- The materials include activities that require manipulatives for students' hands-on exploration of mathematical concepts, thereby developing students' procedural skills and fluency through practical application. For example, in the grade 1, Unit 3: Fractions lesson titled "Candy Straws," students partition Cuisenaire rods into halves and fourths. Students explore different ways to share the candy straws (Cuisenaire rods) fairly, determining examples and non-examples of halves and fourths.
- The materials include tasks that offer multiple entry points. Students choose different strategies to solve problems, which promotes their conceptual understanding and allows students to practice and refine procedural skills for fluency. For example, in the grade 1, Unit 7: Money and Personal Financial Literacy lesson titled "Make Cents with Quarters," students work with a partner to find all the different ways to use pennies, nickels, and dimes to make a quarter. Students use this knowledge to play a game called "Cover a Quarter." They discuss efficient ways to cover the grid without going over.

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

- The materials include strategic questions for teachers to use during instruction. Questions prompt students to consider alternative strategies and to think critically about finding the most efficient approach, finding an alternate solution, and/or applying a procedure to all situations. For example, in the grade 1, Unit 2: Geometry lesson titled "Shape Sorting," the teacher distributes a set of two-dimensional shape cutouts to each group of students and "vaguely asks" students to sort the shapes. When groups finish, the teacher asks students to find a new method of sorting. As each group finishes, the teacher asks students to explain to the class how they sorted their shapes.
- The materials provide opportunities for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy within the lesson. For example, in grade 1, Unit 5: Addition and Subtraction, Part 2 lesson titled "Lining Up Cows," students work in pairs using a set of Cow Cards. They complete a think-pair-share routine on how they can determine

the number of black-and-tan cows the cowgirl has. Students solve the problem using any tools necessary with a partner. Students share their solution strategy with the class. Students generate an equation that represents Task Card A. The teacher asks students how " $6+7=10+ \underline{\quad}$ " relates to the model. Students continue to help the cowboy and cowgirl by completing the problems on the Lining Up Cows Task Card. Students complete the Lining Up Cows Exit Ticket, solve the problem, and write an equation. Students can use concrete models to solve the problem.

- The materials intentionally include tasks that ask students to solve problems using multiple appropriate strategies. For example, in the grade 1, Unit 6: Numbers to 120 lesson titled "Farmer's Market Math," students count a set of objects and represent a number as a set of tens and ones. The teacher reads the book *Count on Pablo* and gives students colored cubes to represent different types of vegetables at the farmer's market. As students count, the teacher walks around the class to observe the different ways students are counting, such as by ones, twos, fives, or tens. Students engage in a think-pair-share routine and explain the different ways they can represent a number.

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**Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches.**

- The materials include explicit modeling of efficient strategies. For example, in the grade 1, Unit 2: Geometry lesson titled "Solid Sorting," the teacher arranges students into small groups and distributes a set of combined 3D solids to each group. Students choose a solid and tell their group about it. If students struggle, the teacher models the process using a think-aloud.
- The materials include explicit modeling of efficient strategies. For example, in the grade 1, Unit 3: Fractions lesson titled "Halves: Sharing a Cake," the teacher uses rectangular paper to demonstrate three different ways to partition a cake in half. The teacher allows students to agree or disagree with each other and explain their thinking. The teacher cuts each model and moves the pieces around to show students that the halves are equal. The materials include explicit directions in the "Lesson Facilitation" section on how to use the rectangular piece to create an anchor chart for examples and non-examples.
- The materials include explicit modeling of efficient strategies. For example, in the grade 1, Unit 6: Numbers to 120 lesson titled "The Largest Number," students practice representing and comparing numbers using comparative language and symbols. The teacher engages students in a think-pair-share routine by asking what they learned in previous lessons. Students may say, "We compared the number of candies a brother and sister had," or "We learned about the greater than and less than symbols," or "We used different models to compare numbers." The teacher next explains to students that they will learn a new game called "The Largest Number." Students play the game in pairs, taking turns rolling two dice and creating a number with the two digits they roll. The students record their numbers on the Comparing Numbers Recording Sheet. Students may also choose to use the Tiny Ten Frame Cards to build each number. After both students build a number, they compare the numbers and record them on their recording sheet.



## Balance of Conceptual and Procedural Understanding

5.3	Balance of Conceptual Understanding and Procedural Fluency	16/16
5.3a	<a href="#">Materials explicitly state how the conceptual and procedural emphasis of the TEKS are addressed.</a>	2/2
5.3b	<a href="#">Questions and tasks include the use of concrete models and manipulatives, pictorial representation (figures/drawings), and abstract representations.</a>	6/6
5.3c	<a href="#">Materials include supports for students in connecting, creating, defining, and explaining concrete and representational models to abstract (symbolic/numeric/algorithmic) concepts.</a>	8/8

**The materials explicitly state how the conceptual or procedural emphasis of the TEKS are addressed. Questions and tasks include the use of concrete models and manipulatives, pictorial representation (figures/drawings), and abstract representations as appropriate for the content and grade level. Materials include support for students in connecting, creating, defining, and explaining concrete and representational models to abstract (symbolic/numeric/algorithmic) concepts.**

Evidence includes, but is not limited to:

**Materials explicitly state how the conceptual and procedural emphasis of the TEKS are addressed.**

- The lessons in the materials intentionally target the conceptual understanding and problem-solving skills of the standards being addressed. The lessons include explicit learning objectives that highlight key conceptual and procedural skills and concepts to be covered. For example, in the grade 1, Unit 3: Fractions lesson titled "Pattern Block Fractions," students deepen their understanding of fractions by exploring various 2D shapes. Students make connections to fractions such as, "The red trapezoid is half of the yellow hexagon." Students work with others to partition pattern blocks into halves and fourths, recording their solutions while doing so.
- The materials clearly explain mathematical concepts to describe the "why" behind mathematical procedures. The materials in grade 1, Unit 3: Fractions include a First Grade Content Map of the progression within the entire unit. The materials demonstrate the connections between students' spatial reasoning as they partition two-dimensional figures into fair shares. The materials incorporate a variety of objects in the lesson to ensure students have the opportunities to use concrete objects and pictorial representations as they partition and identify halves and fourths.
- The lessons include explicit learning objectives highlighting key conceptual and procedural skills and concepts to be covered. For example, in the grade 1, Unit 5: Addition & Subtraction, Part 2 lesson titled "Lining Up Cows," the Content & Language Objective states, "Determine an unknown number when the missing number is any one of four terms and write equations to represent problems." In this lesson, students work in pairs using a set of Cow Cards. They perform a think-pair-share routine to determine the number of black-and-tan cows the cowgirl has. Students solve the problem using any tools necessary with a partner. Students share their



solution strategy with the class. Students generate an equation that represents Task Card A. The teacher asks students how " $6+7=10+ \underline{\quad}$ " relates to the model. Students continue to help the cowboy and cowgirl by completing the problems on the Lining Up Cows Task Card. Students complete the Lining Up Cows Exit Ticket, solve the problem, and write an equation. Students can use concrete models to solve the problem.

- The lessons in the materials intentionally target the emphasis of the standards being addressed. The lessons include explicit learning objectives, which highlight key conceptual and procedural skills and concepts to be covered. For example, the grade 1, Unit 9: Data Analysis lesson titled "The Change in My Pocket" includes a Content and Language Objective that states, "Students will sort objects, create a real-object graph, translate it into a picture graph, and analyze the results."

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**Questions and tasks include the use of concrete models and manipulatives, pictorial representation (figures/drawings), and abstract representations.**

- The lessons include hands-on activities with models or manipulatives that represent mathematical concepts. For example, the grade 1, Unit 2: Geometry lesson titled "What is a Rectangular Prism?" states that "students will analyze a variety of solids and use their observations to define a rectangular prism." The teacher arranges students into groups of two or three and gives each group a set of 3D solids, a square, and a rectangle. The teacher holds up a rectangular prism and challenges students to find shapes that are similar to it. The students sort the solids and discuss what makes a rectangular prism different than the other solids. The teacher notes their observations on an anchor chart.
- The lesson materials incorporate concrete objects, visual representations, and written expressions to illustrate concepts. For example, in the grade 1, Unit 3: Fractions lesson titled "Fourths: Sharing a Cake," students use paper to represent a cake, which they cut into four equal sections. As students find at least two ways to cut the cake into fourths, the teacher models various examples and non-examples on an anchor chart.
- The lessons include hands-on activities with models or manipulatives that represent mathematical concepts. For example, in the grade 1, Unit 7: Money and Personal Financial Literacy lesson titled "Make Cents with Pennies and Nickels," students use plastic coins and a Money Grid to learn the relationship between pennies and nickels. Students first explore the physical properties of the coins. Then, they learn the value and symbols of each coin.

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**Materials include supports for students in connecting, creating, defining, and explaining concrete and representational models to abstract (symbolic/numeric/algorithmic) concepts.**

- The lesson materials provide students with multiple practice opportunities consisting of standard-aligned tasks, allowing students to work towards mastery of grade-level content. The materials include lessons that become workstations for recursive review, allowing students to work towards mastery of grade-level content. For example, the grade 1, Unit 2: Geometry lesson titled "Mystery Bags" functions as a workstation that allows students to "apply their knowledge of two and three-dimensional figures to identify a mystery figure and explain their

reasoning." In the workstation, students work with a partner. One partner feels a figure or solid inside of a bag and describes it to the second partner without looking. The partner may ask clarifying questions to guess the figure.

- The materials include opportunities for students to articulate their emerging understanding of mathematical concepts and procedures through modeling, discussion, and practice. For example, in the grade 1, Unit 3: Fractions lesson titled "Cut It In Half: Pizza Fractions," students experiment with cutting a pizza in half. The teacher asks guiding questions to promote discussion. Students engage in a think-pair-share routine by explaining how they know they created halves. Students have multiple opportunities to practice creating examples and non-examples, as well as discussing their reasoning.
- The materials include scaffolded tasks that guide students in creating their own models. For example, in the grade 1, Unit 3: Fractions lesson titled "Halves: Sharing a Cake," students practice cutting a cake (represented by white paper) into halves. As students attempt to cut the cake into halves in at least two ways, they share with a partner how they know a shape has been partitioned into halves. Students have multiple opportunities to try various ways to cut a rectangular cake into halves. Students discuss their observations and findings with each other. The materials provide sentence stems to help students explain their thinking about one another's models (agree/disagree/tell me more).
- The materials include opportunities for students to build automaticity with the fluency skills necessary to complete grade-level tasks. For example, in the grade 1, Unit 6: Numbers to 120 lesson titled "One More or Less," students practice generating sets that are one more or one less than a given amount. This lesson functions as a workstation for recursive practice. During the workstation, students work in pairs with Linking Cube Cards, a One More or Less Spinner, and a set of linking cubes. The first partner turns over a card and both partners identify the quantity represented. The second partner spins the spinner to determine if they will build a quantity one more or one less than the card. Both partners build the new number and discuss that number using the sentence stems, "The number I see is... I know \_\_\_ is one more/less because..." or "To build a number that is one more/less, I...."

## Balance of Conceptual and Procedural Understanding

5.4	Development of Academic Mathematical Language	14/14
5.4a	<a href="#">Materials provide opportunities for students to develop their academic mathematical language using visuals, manipulatives, and other language development strategies.</a>	3/3
5.4b	<a href="#">Materials include embedded guidance for the teacher addressing scaffolding and supporting student development and use of academic mathematical vocabulary in context.</a>	2/2
5.4c	<a href="#">Materials include embedded guidance for the teacher 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.</a>	9/9

**The materials provide opportunities for students to develop academic mathematical language using visuals, manipulatives, and other language development strategies. Materials include embedded guidance for the teacher addressing scaffolding and supporting student development and use of academic mathematical vocabulary in context. Materials include embedded guidance for the teacher 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.**

Evidence includes, but is not limited to:

**Materials provide opportunities for students to develop their academic mathematical language using visuals, manipulatives, and other language development strategies.**

- The materials describe the development of mathematical vocabulary by first creating a need for the language through carefully designed tasks, visuals, and manipulatives. These tasks, visuals, and manipulatives provide opportunities for students to read and listen to new words in context and then apply those words in their spoken communication. For example, grade 1, Unit 2: Geometry includes the lesson "Regular or Irregular?" In this lesson, teachers distribute a set of two-dimensional shape cutouts to each group of students, prompting them to engage in a think-pair-share routine to discuss how the shapes are alike and different. Teachers introduce students to the term regular polygons and engages students in a think-pair-share routine by asking them to describe regular polygons or what makes such polygons different from others. The "Lesson Suggestions" section directs teachers to "use the correct term 'pentagon' when referring to the shape even though students do not need to show mastery for this shape." According to the materials, "student mastery with the terms 'polygon' and 'non-polygon' occurs in second grade." The materials advise teachers to "create an anchor chart while working through this lesson. To do this, partition a sheet of chart paper in half and write

'Regular Polygons' on one side and 'Irregular Polygons' on the other side. Draw examples for each and write accurate student ideas on each corresponding side."

- The materials describe the development of mathematical vocabulary by first creating a need for the language through carefully designed tasks, visuals, and manipulatives. These tasks, visuals, and manipulatives provide opportunities for students to listen to new words in context and then apply those words in their speaking. For example, in the grade 1, Unit 3: Fractions lesson titled "Fraction Sort, Part I," students sort various fraction models and then discuss with a partner how they sorted the models. The materials provide guiding questions to teachers such as, "Why did you sort them this way? Can you sort the models in a different way? How does card \_\_ compare to card \_\_?" As bullet two of the "Lesson Suggestions" section states, "Avoid telling students the correct answers. Permit them to discuss with a peer and share with the class."
- The materials describe the development of mathematical vocabulary by first creating a need for the language through carefully designed tasks, visuals, and manipulatives. These tasks, visuals, and manipulatives provide opportunities for students to listen to new words in context and then apply those words in their speaking and written language. For example, grade 1, Unit 3: Fractions includes the lesson "Pattern Blocks Fractions." After students have time to explore the pattern blocks, they discuss with a partner the relationships between the pattern blocks and how they relate to halves and fourths. The materials provide discussion points as students engage in a think-pair-share routine to discuss how they divided a shape into halves and fourths. The exit ticket asks students the following: "I know the hexagon is partitioned into halves and fourths because...." This allows students to explain their reasoning in written form.
- The materials provide opportunities for students to develop their academic mathematical language using other language development strategies. Each unit includes a Unit Overview with sections titled "Vocabulary/Academic Language" and "Sentence Stems for Language Development." An example of the "Sentence Stems for Language Development" section appears in grade 1, Unit 9: Data Analysis. The section advises teachers that "using Sentence Stems allows students to use routine language for classroom communication to expand and internalize vocabulary associated with math concepts." The provided sentence stems include the following: "(category) has \_\_\_\_ objects."; "I have more \_\_\_\_ than..."; "The title of the graph could be..."; "The graph shows that..."; "The categories for this graph are..."; "These two graphs are similar/different because..."; "These graphs represent the same data because..."; "There are \_\_\_\_ more/less \_\_\_\_ than...."

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**Materials include embedded guidance for the teacher addressing scaffolding and supporting student development and use of academic mathematical vocabulary in context.**

- The materials provide teacher guidance to address academic mathematical vocabulary. For example, the overview for grade 1, Unit 3: Fractions includes six words in the "Vocabulary / Academy Language" section. When a lesson introduces new vocabulary, classes utilize and create anchor charts for future lessons. For example, in the lesson titled "Cut It In Half: Pizza Fractions" in Unit 3: Fractions, students create halves, and then teachers name this term. The class starts an anchor chart for halves. The class adds different examples of halves to this

anchor chart during the "Fraction Strips" and "Halves: Sharing a Cake" lessons. The materials recommend using terms to create a word wall during instruction.

- The materials include scaffolds teachers can use for students as they develop and use academic vocabulary. The "Lesson Internalization Overview" section encourages teachers to reflect on what academic vocabulary is embedded in each lesson and how to connect it to basic vocabulary. The materials use sentence stems and discussion starters to support the use of academic vocabulary. In the grade 1, Unit 6: Numbers to 120 lesson titled "Looping Numbers," students practice using vocabulary by utilizing the following sentence stems: "\_\_\_ is greater than \_\_\_. I know this because..."; "\_\_\_ is less than \_\_\_. I know this because..."; "\_\_\_ is equal to \_\_\_. I know this because...."
- The materials provide teacher guidance to address academic mathematical vocabulary. For example, each Unit Overview includes a section titled "Vocabulary/Academic Language." This section suggests using terms during instruction and creating a word wall. For example, grade 1, Unit 9: Data Analysis includes the following terms: analyze, bar-type graph, category, column, conclusion, data, label, picture graphs, survey, t-chart, tally mark, and title. These terms are further defined at the lesson level. For example, in the lesson "Using Tallies to Keep Track" in grade 1, Unit 9: Data Analysis, teachers read a book that provides context, then engages students in a hands-on lesson that introduces the term tally marks by the end. The class then discusses students' observations about tally marks. Students then repeat this process for bar-type graphs. The materials provide teachers guiding questions and sentences that students can utilize. The Unit Overview also includes a section titled "Sentence Stems for Language Development," which supports routine language to expand and internalize vocabulary associated with math concepts. The sentences for grade 1, Unit 9: Data Analysis include, "I have more \_\_\_ than..." and "The title of the graph could be...."

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**Materials include embedded guidance for the teacher 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.**

- The materials provide a set of discussion questions that can be used to facilitate discourse without limiting student responses, guiding students to exemplar responses to questions and tasks using their developed mathematical language. For example, in grade 1, Unit 2: Geometry, the lesson "Circles and Triangles" uses questioning to support mathematical conversations through class discussions and think-pair-share routines. Teachers ask students the following questions: "What makes a circle different from the other shapes? Why is this shape not a circle? Do these triangles look exactly the same? How are these triangles the same? How do you know if a shape is a circle? How do you know if a shape is a triangle?"
- The materials provide a set of sentence stems that can be used to facilitate discourse without limiting student responses, guiding students to exemplar responses to questions and tasks using their developed mathematical language. For example, in the overview for grade 1, Unit 3: Fractions, the "Sentence Stems for Language Development" section provides four sentence

stems, which include the following: "This figure is partitioned into halves/fourths because..."; "This model does not represent halves/fourths because...."

- The materials include embedded teacher guidance on preparing for and facilitating strong student discourse grounded in quality tasks and concepts that use appropriate academic vocabulary. For example, the materials provide teachers with various types of questions that open student discussion via partner talk and group discussion activities. For example, in the grade 1, Unit 7: Money and Personal Financial Literacy lesson titled "Earning, Spending and Saving," steps 1-2 of the "Lesson Facilitation" section includes a set of questions to ask students after reading two stories aloud. Students are expected to use textual evidence to answer the questions. Steps 3-4 of the "Lesson Facilitation" section include directions for students to work in groups. Students write down what they know about earning, spending, and saving using the sentence stems.
- The lesson materials include embedded guidance for teachers to support the application of appropriate mathematical language. Such materials support mathematical conversations and provide opportunities for students to use math language with peers. For example, in the grade 1, Unit 8: Measurement lesson titled "How Many...?" the "Lesson Facilitation" section includes scripts incorporating assessing questions. These questions include the following: "Why could we have different answers for each student who measured the room?" How Many...?" The "Recording Sheet" resource contains open-ended questions for students to "describe how [they] measured the length of the room."



## Balance of Conceptual and Procedural Understanding

5.5	Process Standards Connections	6/6
5.5a	<a href="#">Process standards are integrated appropriately into the materials.</a>	1/1
5.5b	<a href="#">Materials include a description of how process standards are incorporated and connected throughout the course.</a>	2/2
5.5c	<a href="#">Materials include a description for each unit of how process standards are incorporated and connected throughout the unit.</a>	2/2
5.5d	<a href="#">Materials include an overview of the process standards incorporated into each lesson.</a>	1/1

**The process standards are integrated appropriately into the materials. Materials include a description of how process standards are incorporated and connected throughout the course. Materials include a description for each unit of how process standards are incorporated and connected throughout the unit. Materials include an overview of the process standards incorporated into each lesson.**

Evidence includes, but is not limited to:

### **Process standards are integrated appropriately into the materials.**

- The materials provide an overview and explanation of how the process standards are embedded throughout the course, including how the process standards connect to the content standards. For example, the unit overview for grade 1, Unit 3: Fractions provides process standards connections that explain ways the materials incorporate process standards.
- The process standards are included in all parts of the materials: lessons, student practice, and assessments. For example, in grade 1, Unit 7: Money and Personal Financial Literacy, students must orally communicate their mathematical ideas and reasoning (1.1D) when discussing earning, spending, saving, and charitable giving.
- The process standards are integrated appropriately into the materials. For example, as grade 1, Unit 9: Data Analysis states, "Students communicate mathematically by creating different representations of the same data. They are also given opportunities to justify and explain their mathematical arguments using precise academic language." In the lesson titled "What Do You See?" students vote using craft sticks, then organize the sticks into tally marks. Students use the data to complete a bar-type graph and discuss in a think-pair-share routine how the T-chart with tally marks and the bar-type graph are similar. The teacher models how to use the bar-type graph to draw conclusions.



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**Materials include a description of how process standards are incorporated and connected throughout the course.**

- The materials include a description of how process standards are integrated into the materials. The grade 1 Program Overview includes a Process Standards Map that explains, "The mathematical process skills focus on how students engage with math content. These are embedded and spiraled throughout the year. They help bring cohesiveness to math concepts that otherwise seem disconnected." The materials further explain that the "process skills are embedded throughout each unit to support students in attaining a greater depth of understanding." The Process Standards Map includes a list of ways the process standards are used throughout the program, including "daily energizers [that] allow students to analyze mathematical relationships, connect and communicate mathematical ideas, and explain and justify using precise mathematical language."
- The materials provide an overview and explanation of how the process standards are embedded throughout the course, including how the process standards connect to the content standards. For example, the Unit Overview for grade 1, Unit 3: Fractions provides a "Process Standards Connections" section that explains ways that the materials incorporate the process standards.
- The materials show where each process standard is addressed in the course. For example, the grade 1, Unit 7: Money and Personal Financial Literacy Overview lists each process standard and the lesson in which that process standard is embedded. In the "Program Overview" section, the materials also include a Process Standards Map that explains how the materials embed process standards throughout each unit.

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**Materials include a description for each unit of how process standards are incorporated and connected throughout the unit.**

- The materials explain how the process standards are embedded in the unit, including how the process standards connect to the content standards. For example, in the grade 1, Unit 3: Fractions Overview, the "Process Standards Connections" section states that "students solve real-world problems by partitioning two-dimensional figures and look for relationships between different models."
- In each unit overview, the materials include a description of how process standards are incorporated and connected throughout the unit. For example, each unit overview includes a section titled "Process Standards Connections." As the grade 1, Unit 6: Numbers to 120 "Process Standards Connections" section states, "Again, students are given opportunities to select tools to solve problems. They also use a problem-solving model to count collections of objects and compare their process with their peers. Students use multiple materials and models to represent numbers up to 120 and make connections between them to generalize that numbers are composed of so many tens and ones. For example, ninety-eight is composed of nine tens and eight ones."
- The materials explain how the process standards are embedded in the unit, including how the process standards connect to the content standards. For example, in the grade 1, Unit 7: Money and Personal Financial Literacy Overview, the "Process Standards Connections"

section states that "students are expected to make connections between the coins and their values. They use money grids that proportionally represent the relationship between the values in coins. Students also use a problem-solving model to count a collection of coins."

- In each unit overview, the materials include a description of how process standards are incorporated and connected throughout the unit. For example, each unit overview includes a section titled "Process Standards Connections." As the grade 1, Unit 9: Data Analysis "Process Standards Connections" section states, "Students communicate mathematically by creating different representations of the same idea. They are also given opportunities to justify and explain their mathematical arguments using precise academic language."

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**Materials include an overview of the process standards incorporated into each lesson.**

- The materials include an overview of the process standards incorporated into each lesson. Each unit overview features a table that includes the title of each lesson and lists the content standards, process skills, ELPS, and suggested number of days to teach the lesson. standards, or ELPS. For example, the grade 1, Unit 2: Geometry lesson titled "Two-Dimensional Shape Bump" covers the content standards 1.6(D), the process standard 1(D), and the ELPS 4(C) and 4(F). On the lesson page, the materials write out the TEKS (Math Standards) and ELPS (Language Standards).
- The materials list the process standards in the "Unit Overview" section. For example, grade 1, Unit 3: Fractions Overview lists 1(C) and 1(G) as the process standards for the lesson titled "Fraction Sort Part I."
- The materials include an overview of the process standards incorporated into each lesson. Each unit overview features a table that includes the title of each lesson and lists the content standards, process skills, ELPS, and suggested number of days to teach the lesson. standards, or ELPS. For example, the grade 1, Unit 6: Numbers to 120 lesson titled "Race to 100" covers the content standards 1.2(C), 1.5(B), and 1.2(D), the process standards 1(D) and 1(E), and the ELPS 4(B) and 3(C). On the lesson page, the materials write out the TEKS (Math Standards) and ELPS (Language Standards).

## Productive Struggle

6.1	Student Self-Efficacy	15/15
6.1a	<a href="#">Materials provide opportunities for students to think mathematically, persevere through solving problems, and to make sense of mathematics.</a>	3/3
6.1b	<a href="#">Materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks.</a>	6/6
6.1c	<a href="#">Materials are designed to require students to make sense of mathematics through doing, writing about, and discussing math with peers and teachers.</a>	6/6

**The materials provide opportunities for students to think mathematically, persevere through solving problems, and to make sense of mathematics. Materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks. Materials are designed to require students to make sense of mathematics through doing, writing about, and discussing math with peers and teachers.**

Evidence includes, but is not limited to:

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

- The materials include opportunities for students to think mathematically during discussions of the lesson's key concepts. For example, in the grade 1 Unit 7: Money and Personal Financial Literacy lesson titled "Earning, Spending and Saving," students listen to the book *Just a Piggy Bank*. Students then discuss the ideas of income, saving, and spending. After listening to the story, students discuss the answers to questions such as, "Where did charitable giving happen in the book? How did the character feel when he spent all his money? How did the character earn income and save their money?"
- The materials include opportunities for students to persevere through problem-solving. For example, the grade 1 Daily Energizers include routine practice opportunities. The daily prompts offer a way to "encourage students to think deeply, share their reasoning, learn from each other, and make connections to the world around them. The most crucial component of the energizers in this resource is exploration through the conversations they generate. We all think differently from one another, and these differences should be examined and shared." For example, in Week 29, teachers show students an "Odd One Out" mat with four pictures of clocks. The pictures include three watches. Some of these watches show an analog time, while others show a digital time. The other picture shows an analog clock. Students determine which image doesn't belong and why. Any of the images could be the answer based on students' justifications.
- The materials include opportunities for students to make sense of math using various strategies and stimuli. Unit 1: Addition and Subtraction, Part 1 lesson titled "What's My Value?" includes open-ended questions that allow students to explore different pathways to a solution. Students work with Cuisenaire rods to compose the number 10 (the orange rod) in as

many ways as possible using combinations of the other rods. Students discuss how they used the Cuisenaire rods to compose the number 10 in different ways.

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**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 explaining that there can be multiple ways to solve problems and complete tasks. The grade 1 Daily Energizers include mathematical tasks and questions that require students to practice representing, writing, and discussing their thinking. For example, in Week 36, Prompt 1.177 shows students a word problem that states the following: "There were eighteen frogs on a log. Some of them jumped into the pond. Now, there are eight frogs left on the log. How many frogs jumped into the pond?" The materials direct teachers to "show students the prompt and read it aloud. Ask students to share their strategy as well as their solution. Some students may say they counted upward from eight until they reached eighteen to determine how many frogs jumped away. Others may determine the difference between the eighteen frogs on the log at the beginning and the eight frogs on the log at the end."
- The materials provide sentence stems for students to justify that there are multiple ways to solve problems. For example, in the grade 1 Unit 3: Fractions lesson titled "Fraction Sort, Part 2," students sort various fraction models into three categories (halves, fourths, and non-examples) and explain their thinking. After students have shared their ideas, they record their findings on the recording sheet. The following sentence stems are provided for students to record their findings: "Card \_\_\_ represents \_\_\_. I know this because... "; "Card \_\_\_ does not represent halves or fourths. I know this because...." Students can describe how they know which fraction models belong with halves, fourths, or non-examples in multiple ways because of this open-ended sentence stem.
- The materials support students in understanding that there can be multiple ways to solve problems and complete tasks. The "Interleaved Practice" materials at the end of each unit include tasks that require students to explain or justify that there are multiple ways to solve a problem. For example, in the grade 1 Unit 5: Addition & Subtraction, Part 2 "Interleaved Practice" section, students solve three-word problems by either using ten-frames or drawing pictures. The first problem states, "There were thirteen students on the carousel. Then five more students joined. How many students are on the carousel now?" Students use the strategies they have learned throughout the unit to solve the problems.

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**Materials are designed to require students to make sense of mathematics through doing, writing about, and discussing math with peers and teachers.**

- The materials are designed to require students to make sense of mathematics by doing math with peers and teachers. For example, in the grade 1 Unit 2: Geometry lesson titled "Space Shapes," students gain a deeper understanding of composing shapes by joining two, three, or four figures in more than one way. In this activity, students pick a Space Shape Task Card and use pattern blocks to compose the figure on the card. The materials include prompts for the

teacher to encourage students to compose each figure in as many ways as possible. Students record two of these ways on the Space Shapes Recording Sheet. After completing each Space Shape Task Card, students stop and discuss the shapes they used to compose each figure.

- The materials require students to make sense of mathematics by discussing math with peers and teachers. For example, in the grade 1 Unit 4: Time lesson titled "Clock Count Around," students tell time to the nearest hour and half-hour using a geared analog clock. Students make observations about the relationship between the minute hand and the hour hand. Students complete a think-pair-share that prompts them to share what they know about time. This lesson provides students opportunities to make observations, explore, and tell time with analog clocks. At the end of the lesson, the class debriefs with a think-pair-share. Students reflect on what they have learned about analog clocks as the teacher records their ideas on a chart.
- The materials require students to make sense of mathematics by writing about math with peers and teachers. For example, in the grade 1 Unit 8: Measurement lesson titled "Super Sand Castles," students measure objects on task cards using two different-sized Cuisenaire Rods. Then, students use the Super Sand Castles Recording Sheet to complete the following sentence stem: "It takes more red rods to equal the height of each sand castle because...."

## Productive Struggle

6.2	Facilitating Productive Struggle	10/10
6.2a	<a href="#">Materials support teachers in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, and justifications.</a>	6/6
6.2b	<a href="#">Materials offer prompts and guidance to assist teachers in providing explanatory feedback based on student responses and anticipated misconceptions.</a>	4/4

**The materials support teachers in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, and justifications. Materials offer prompts and guidance to assist teachers in providing explanatory feedback based on student responses and anticipated misconceptions.**

Evidence includes, but is not limited to:

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

- The materials include instructions, questions, and prompts to facilitate student sharing and reflection on problem-solving approaches. The facilitation guidance prompts students to include explanations, arguments, and justifications. For example, the grade 1 Daily Energizers include daily prompts that encourage and facilitate student discussion through sentence frames that help students share their ideas. These sentence frames include the following: "My idea makes sense because \_\_\_\_."; "My strategy is similar/different because \_\_\_\_."; "What is one new idea you discovered?"
- The unit pre-assessments and end-of-unit assessments provide prompts for teachers to use when assessing students. These prompts allow students to explain their thinking and justify their answers. For example, the second prompt of the grade 1 Unit 6: Numbers to 120 Pre-Assessment instructs teachers to "place the linking cubes on the table, including at least one linked chain of ten cubes. Prompt the student to show you eighteen cubes. Ask the student to explain how they know there are eighteen cubes."
- In the grade 1 Unit 2: Geometry lesson titled "String Shapes," students create shapes using a loop of string. Students then explain their building process and reasoning. The materials include guidance in directing students to create a circle with their string loop. Teachers monitor student conversations. They listen to students say things such as a circle must be "perfectly round" or "not squished at all." Teachers prompt students to share the process they used and why it worked. The class continues this process with other shapes.

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**Materials offer prompts and guidance to assist teachers in providing explanatory feedback based on student responses and anticipated misconceptions.**

- The materials include information on common misconceptions students may have and how teachers should address them through explanatory feedback. For example, in grade 1 Unit 6:

Numbers to 120, the lesson titled "The Largest Number" includes teacher guidance in the "Lesson Suggestions" section, which informs teachers that "if students struggle with the symbols, prompt them to draw two dots next to the largest number and one dot next to the smallest number and then 'connect the dots.'"

- Grade 1 Unit 8: Measurement lesson titled "How Many...?" includes a "Lesson Facilitation" section, which reminds teachers that "some students may choose to use estimation to determine the length on the How Many...? Exit Ticket. Encourage these students to compare their estimation with their actual measurement."
- Grade 1 Unit 4: Time lessons include examples of student responses, both correct and incorrect, along with suggested teacher feedback for each kind of response. Sample responses include academic vocabulary in the responses and feedback. For example, in the lesson titled "Hour Hand Clocks," students observe and sort Hour Hand Clock Cards. After they sort the cards, students share their observations with the class. If students refer to the hour hand on the clock as an arrow, the materials advise teachers to restate student observations using "hour hand" instead of "arrow" and "halfway past" instead of "middle." For example, the teacher might say, "You notice some of the arrows are halfway between two numbers."